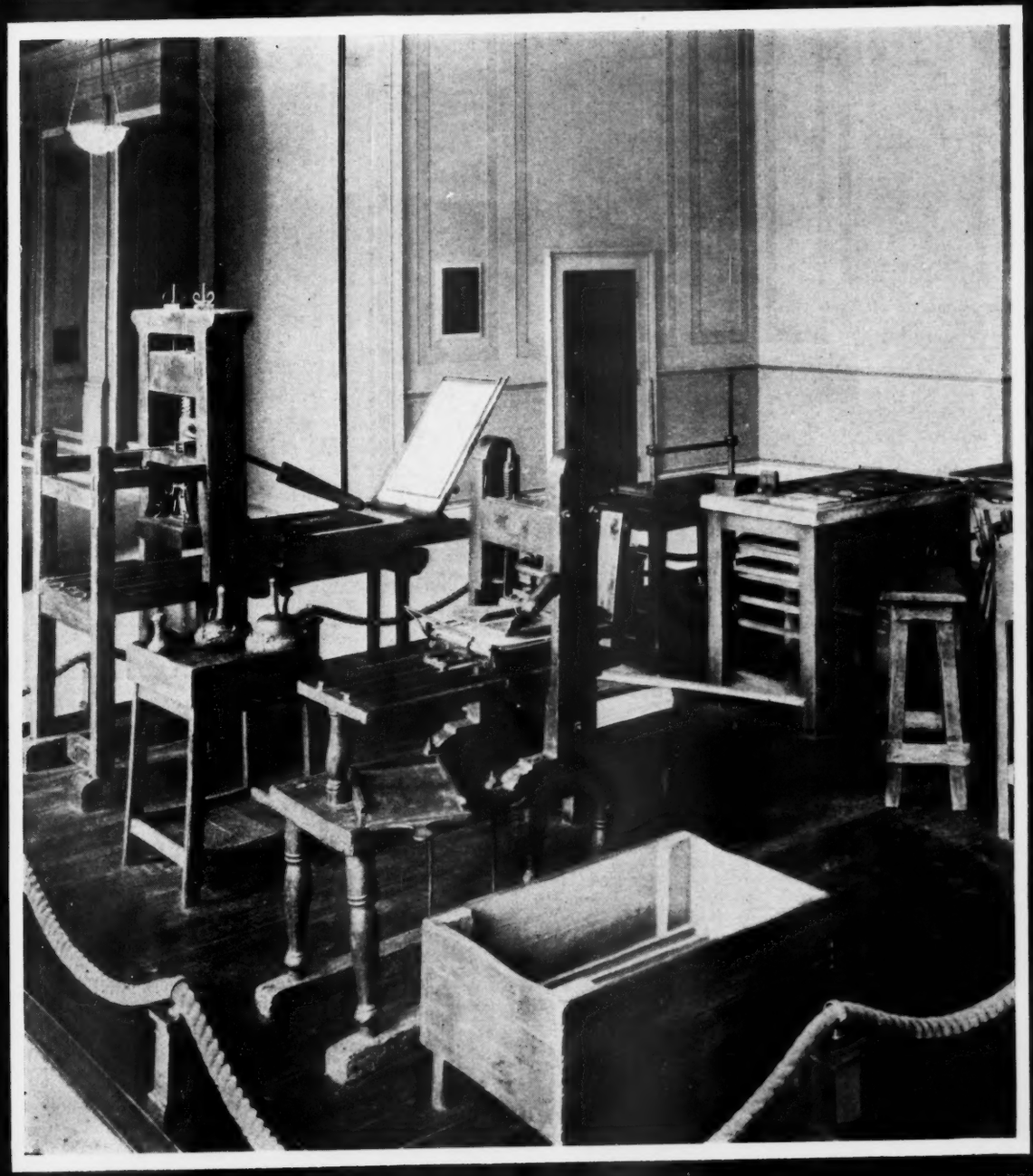
PRINTING EQUIPMENT *Engineer*



adding Romance to the American Way

We took them joyously into our hearts just as soon as we learned to read—those delightful character creations, Huck Finn, Uncle Tom, Rip Van Winkle, and others. To us they actually lived and added romance to our lives. They shaped our ideals to wholesome patterns. The introduction of these fancied heroes into our American way of living, and the intermingling of their exploits with our emotional growth, can be traced conclusively to one thing—the initiative of the PRINTER. All thinking, all writing, needs a vehicle of transmission. Newspapers, magazines, and edition books carried American literary idols into millions of homes and hearts. National life was influenced by it. Progress was accelerated. The cultivation of intelligence by the press, a golden rule of liberty, can be thanked for America's greatness. Opportunities will never cease, and printers, perpetually resourceful, will enact their greatest role in tomorrow's new demands.

NOW AVAILABLE. Complete and comprehensive Guide Book of Essential Wartime Printing and Lithography. 64 pages (8½" x 11") of detailed description and information on every government public relations problem which can be aided by printed promotion. We shall be glad to obtain a copy for you . . . or write direct to Graphic Arts Victory Committee, 17 East 42nd St., New York City.

HARRIS · SEYBOLD · POTTER · COMPANY

HARRIS DIVISION
CLEVELAND 5, OHIO
MANUFACTURERS OF OFFSET LITHOGRAPHIC • LETTERPRESS AND GRAVURE PRINTING MACHINERY • • • • •

SEYBOLD DIVISION
DAYTON F7, OHIO
MANUFACTURERS OF PAPER CUTTERS AND TRIMMERS • KNIFE GRINDERS • DIE PRESSES • WRIGHT DRILLS • MORRISON STITCHERS

Aid in the War Effort—take care of what you own!

Dependability!

It is fortunate for the Ludlow-equipped printer producing composition essential to the war effort that the Ludlow functions so dependably. Users know from experience that, with reasonable care given regularly, their Ludlow equipment will give dependable service and keep on producing slug-cast job and display composition almost indefinitely.

• The simplicity and durability of Ludlow equipment which largely account for its remarkable dependability and comparative freedom from mechanical trouble, are not accidental characteristics, but result from the application of both experience and discrimination to the production of equipment with which practical composing room production requirements can be met continuously and efficiently.

• We invite you to call on us for any essential needs and for any desired special advice on how to keep your Ludlow equipment operating at peak efficiency. Although our manufacturing facilities are devoted almost wholly to war production, we will continue to supply parts and service to the very best of our ability.

LUDLOW TYPOGRAPH COMPANY

2032 Clybourn Avenue + + + Chicago 14, Illinois

Aid in the War Effort—take care of what you own!

No Magnifying Glass Necessary

You don't need a magnifying glass to tell when your rollers are not right. You can tell by the quality of printing, the ink consumption, and the frequency of necessary wash-ups.

With the present desperate need of manpower, not a minute should be wasted by using rollers that do not give maximum production. You can be sure of this by replacing with Bingham Rollers when there is even a suspicion that they are not in the best condition.

Good rollers are more economical than reduced production. Watch them carefully, and if you need help in solving a particular roller problem, write, wire or telephone your nearest Bingham representative.

SAM'L BINGHAM'S SON MFG. CO.

Roller Makers Since 1847

Manufacturers of Printers' and Litho-Offset Rollers

CHICAGO

Atlanta	Des Moines	Indianapolis	Minneapolis	Pittsburgh
Cleveland	Detroit	Kalamazoo	Nashville	St. Louis
Dallas	Houston	Kansas City	Oklahoma City	Springfield, O.

Makeready Of all the printing chores that steal productive press hours, makeready has no rival. So the least the printer can expect in the press he owns is a design in which the inking mechanism, cylinder and bed are readily accessible. His press needs sufficient impressional strength so that one makeready stays madeready. These twin qualities of accessibility and permanence are the chief reason why the ATF Kelly press goes the limit in solving the makeready problem.

GET IN LINE NOW with ATF's Civilian Priority Delivery plan, for the presses you will need when the war ends. Full details from your ATF Salesman or upon request.

ATF Kelly... THE PRESS OF TODAY AND TOMORROW

BUILT AND BACKED BY
american
TYPE FOUNDERS
200 ELMORA AVENUE
ELIZABETH, NEW JERSEY

Wood
NEWSPAPER
MACHINERY

War-Time Maintenance Suggestions

FITTING NEW POURING SHEETS

on PONY Autoplates

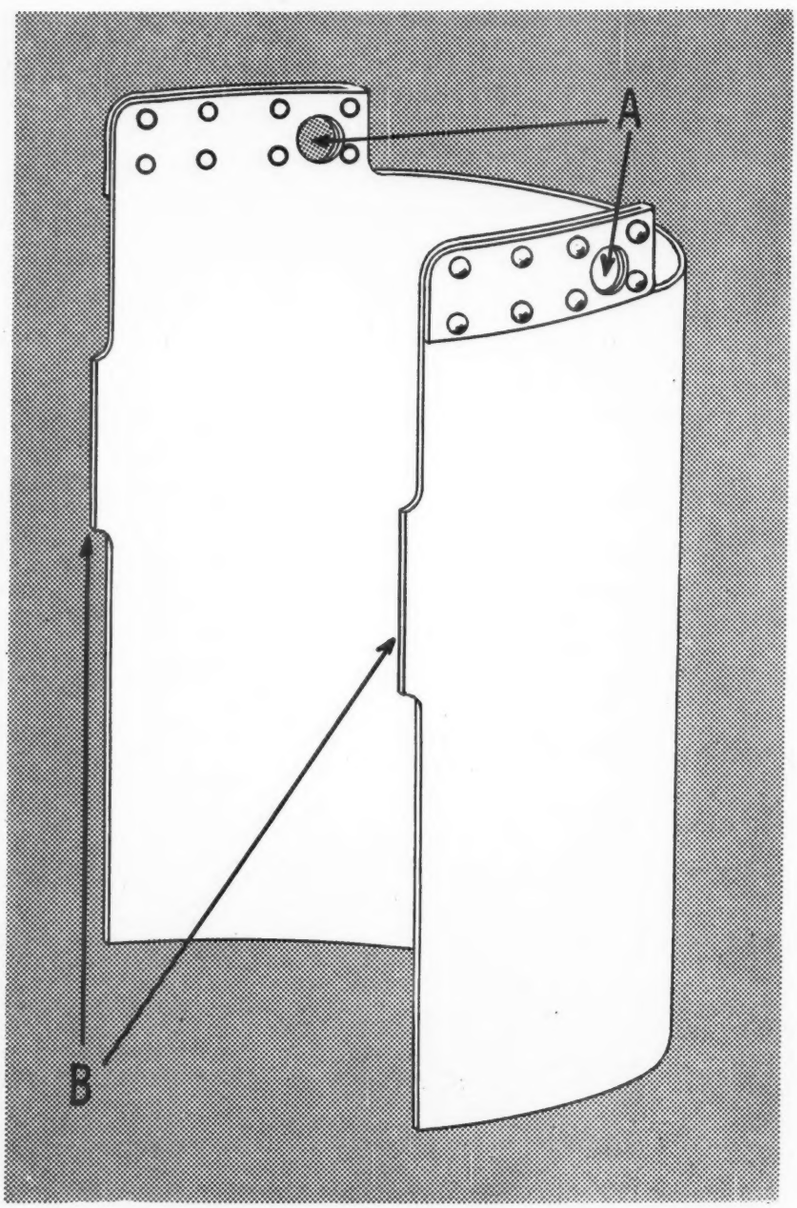
When new pouring sheets are supplied, for replacement on Pony Autoplates, they are deliberately furnished slightly oversize, to allow for possible wear.

After removing the old pouring sheet, set the new one in place. If necessary, file slightly the two holes at the top of the sheet—marked (A) on diagram.

Then bring the Autoplate core to vertical position, *without* any matrix in casting box. The flanges, on the core supporting bracket, will contact the two edges—marked (B) on diagram—just before core is properly locked up. File down these pouring sheet edges, just enough to insure a close fit.

Wood Newspaper Machinery Corp., Plainfield, N. J., New York Office: 501 Fifth Ave., New York 17, N. Y.

If you have not received the reprints of the recent suggestions in this series, to add to your "War-Time Brochure", please write our New York office.



PRINTING EQUIPMENT *Engineer*

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

VOL. 67 NO. 4

MacD. SINCLAIR.....Editor
ADAM HENRI REISER....Associate Editor
J. HOMER WINKLER. Contributing Editor

Member Controlled

CCA

Circulation Audit

PRINTING EQUIPMENT Engineer. Published monthly at 1276 West Third St., Cleveland 13, Ohio. Copyright 1944 by Willsea Pub. Co. Printed in U. S. A.

DON WILL, Publisher
E. P. Bloomster, Western Representative, 232 East Erie St., Chicago, Ill., phone SUperior 2444.

Subscription price per year, $3.50 in advance in U. S. A. Single copy current issues 35c; feature issues $1 per copy; December Equipment and Supplies Catalog Issue $1 per copy. Subscriptions in foreign countries as permitted for duration $4.50 (U. S. currency) in advance.

LEADING ARTICLES, JANUARY 1944

Coating Machine

Russ B. Leech discusses "hot melt" or thermoplastic coating applied to soap and food wrappers, magazine covers and other products 9

Composing Room-By-Mail Clinic

Conducted by ANPA Mechanical Committee reviewed 11

In 1944

H. A. Porter reaffirms that winning war is biggest job confronting all industry—post-war planning being looked into..... 13

Executive Paragraphs..... 14

Technical Literature..... 16

"Fluid Type" Specimens

Shown in miniature as produced in a Pittsburgh Typographic Studio.. 17

Joe Bloe—Foreman—Part IX

William Wyatt Warfel tells about Joe's discussion with Frank Ness Daub in which the boys get their feet on more solid ground..... 18

Newsprint Made Partially from Waste

Trial runs at Chicago *Tribune* show that it "behaves" normally in the presses 21

WPB News and Notes

Book, Commercial, Magazine and Newspaper print paper orders amended so that reduced consumption averages from 18% to 24% total 22

Printing Patents Report..... 25

Annual Editorial Index..... 38

TECHNICAL BOOKS

- **STANDARD BOOK ON ESTIMATING for PRINTERS —By Fred W. Hoch.** Revised 1941 edition. This book is a primer for students and a reference for printers and estimators. Every printing plant should have a copy. Author explains all operations in commercial printing plant and shows production time allowance for each in hours and decimal hours. Size, 6 in. by 9¼ in., 268 pages, $3.75 per copy, cash with order.
- **PRINTING INKS — Their Chemistry and Technology —By Carleton Ellis.** Bound in cloth, 6 in. by 9½ in., 560 pages, well illustrated. For printing executives, pressmen, photo-engravers, platemakers, ink manufacturers, chemists, paper-makers. Author stays close to printing plant. The solving of new production problems brought about by technological improvements, both in equipment and inks, created the urgent need for this book. Price $7, cash with order.
- **THE PRACTICE OF PRESSWORK — By Craig R. Spicher.** We offer copies to our readers, at the special price of $4.00 per copy, cash with order. No printer should be without a copy (9000 copies printed).
- **LITHOGRAPHER'S MANUAL—Compiled by Walter E. Soderstrom.** Second revised edition. Technical information from copy to finished job. Nationally known technical men contributed the bulk of practical camera, platemaking and presswork information. Size 8½ in. by 11¼ in. Bound in red cloth, gold stamped. Many of the 368 pages are illustrated. Price $5 per copy, cash with order.
- **PHOTOGRAVURE — By H. Mills Cartwright.** Covers all of photogravure's basic principles in concise and readable language. Rotogravure receives minor discussion but this is generally considered best textbook on photogravure process. Contains 202 pages, 34 illustrations, maroon cloth, size 6¼ in. by 9¼ in., $3.50 per copy, cash with order.
- **MANUAL OF STEREOTYPING — By Joseph Goggin.** This 256-page book conveys technical information and manipulating procedure. Written by a practical stereotyper. Price $5.00, cash with order.
- **PRESSROOM PROBLEMS AND ANSWERS — By Fred W. Hoch.** Might be considered a miniature encyclopedia since it contains answers to 334 pressroom problems which have been answered by Mr. Hoch. Written in language of journeyman pressman. Pressmen, production men, paper and ink manufacturers, electrotypers and photo-engravers will find this book of high utility when pressroom problems arise in which tendency is to lay blame on furnished materials used in pressroom production. Size, 6 in. by 9½ in., 258 pages, gold stamped blue cloth. Price, $2 per copy, cash with order.
- **HOW TO ADJUST WORK-UPS—By Wm. H. Lichter and Geo. F. Smalley.** Booklet consists of 24 pages in which are analyzed and remedies are given for prevention and/or elimination of work-ups. Material written as result of actual plant experience. Size, 5¼ in. by 7¼ in. Price, $1 per copy, cash with order.
- **HANDBOOK FOR PRESSMEN — By Fred W. Hoch.** Book written by authority on all phases of flat-bed letterpress production for the practical pressman. Contains 248 pages, 26 illustrations and 24 charts, $3 per copy, cash with order.
- **READING AS A VISUAL TASK—By Matthew Luckiesh, D.Sc. and Frank Miss, E.E.** Most important research work to have been published in many years. For printers designers, publishers, typographers and layout men. Readability of type, type faces, length of line, leading between lines, paper, ink, printing method and lighting are some of the factors involved in ease of reading. Size 5½ in. by 8¾ in., 428 pages, bound in maroon gold stamped cloth. Price $5 per copy. Please enclose remittance with order.

Please Note: All book order must be accompanied by remittance. This is necessary because of narrow handling margin allowed.

PRINTING EQUIPMENT *Engineer*
1276 West Third Street
Cleveland 13, Ohio

WAKE UP

the sleeping contrasts in those print jobs!

USE MERCURY PRODUCTS

Make the tone-values in those halftones "rise and shine." The best plates ever produced still require accurate inking for pep and sparkle. That calls for Mercury rollers and blankets! They cover the form "just so"—because they're microscopically flawless, and their diameter is accurate to thousandths of an inch. Try 'em.

Mercury rollers for both lithographic and typographic presses.

Mercury blankets for all makes of lithographic presses.

RAPID ROLLER COMPANY

D. M. RAPPORT, Pres. Federal at 26th Street, CHICAGO

MONOTYPE CONTRIBUTIONS
TO PRINTING PRODUCTION

For Use in the Composing Room

TYPE-SETTING MACHINE—Consists of two units, a Keyboard and Type-Caster; sets type in justified lines in all sizes from 4 to 18 pt. Can also be equipped to make type up to 36 pt., and Rules, Leads and Slugs from 1½ to 12 pt.

TYPE-&-RULE CASTING MACHINE—Casts Type and Ornaments for hand composition in all sizes up to 36 pt.; makes Rules, Leads and Slugs from 1½ to 12 pt., delivered in strips or cut labor-saving.

MATERIAL MAKING MACHINE—Casts Decorative Borders, Rules, Leads and Slugs in various sizes from 1 to 18 pt., in strips or cut labor-saving. Makes either high or low cut-mounting base in 18, 24 or 36 pt. sizes.

THOMPSON TYPE-CASTER—Casts Type, Quads, Borders, Ornaments, etc., for hand composition in all sizes from 6 pt. up to and including 48 pt.

GIANT CASTER—Casts Type in sizes from 14 to 72 pt.; makes "precision" metal base from 14 to 72 pt. for cut-mounting and spacing, automatically cast and delivered in any length desired.

MONOTYPE TYPE FACES—Range in sizes from 4 to 18 pt. for Machine Type-Setting and up to 72 pt. for Type-Casting to be used in hand composition. Type faces for every purpose. More than 400 series of Type, thousands of Special Characters, Figures, Ornaments, Borders, etc.

For Photo-Mechanical Plate-Making

M-H PHOTO-IMPOSING SYSTEM—A practical method by which line color register can be obtained without the use of a photo-composing machine in making offset press plates. Made in two sizes.

M-H VERTICAL PHOTO COMPOSING MACHINE—With Hi-Speed Non-Embossing Negative Holder and Universal Register Device—designed for the special purpose of securing close precision in registering negatives for single and multicolor process work in lithographic offset and gravure plate-making. Made in three sizes.

M-H UNIVERSAL PROCESS MACHINE—This is a small photo-composing machine for making multiple-image negatives and positives (singly or in combination) and bromide prints, either direct or by contact; for making combination proof plates and production press plates, applying step-and-repeat to making photo-engravings, and for scribing lines on glass or film negatives.

M-H OVERHEAD MOTOR-FOCUSING CAMERA—A specially designed all-metal camera, embodying many new and exclusive features. Special features and attachments include overhead method of suspension; motor-movement of lensboard and copyboard for focusing; micrometer adjustments; darkroom operation and control; special sliding screen carriage and housing; vacuum back; diffuser; oscillating, tilting or horizontal copyboards, etc. Made in four sizes.

M-H VERTICAL PLATE-COATING MACHINE—For distributing and drying coating solution on plates intended for use on offset and gravure presses. Standard Model in five sizes; Junior Model in one size.

M-D SIMPLEX PHOTO COMPOSING MACHINE—For the accurate placement of images on offset or lithographic press plates. Made in two horizontal models.

M-D ALL-METAL PRECISION CAMERA—For the production of line and halftone negatives, with provision for the addition of special units for color and process work. Made in 24x24-inch and 31x31-inch sizes.

M-D OFFSET COLOR PROOFING PRESSES—Produce proofs in perfect register from either zinc or aluminum plates or stones. Hand and electric models available in three different practical sizes.

We Will Be Pleased to Send a Complete Description and Prices of Any of the Units Listed on this Page

LANSTON MONOTYPE MACHINE COMPANY
MONOTYPE BUILDING, TWENTY-FOURTH AT LOCUST STREET, PHILADELPHIA, PENNA.

Text set in Monotype Bodoni, No. 375; Display set in Monotype Stymie Family

Will single-line selling still stymie your salesmen?

The printing salesman who will get the *real* volume, after the war is done, will be the one who represents a well-balanced shop... in which offset lithography adds its flexibility to letterpress to offer the customer a complete printing service. What will *your* men have to sell?

War-time offset lithography has shown business men what this process can do for their advertising and commercial printing. With the return of peace, this ready-made demand will seriously handicap the salesman whose shop can offer only one service. But the salesman whose shop *is* equipped with both twin services... letterpress and offset... can win extra business from his old customers and more business from new customers.

With an offset department, his shop will be unhampered by the expense and delays of engravings and electros; unlimited in choice of paper to be used; free to use whichever process best suits the job, or both in combination.

ATF will have ready everything required for an offset department... complete from darkroom to pressroom ...just as soon as V-Day arrives. Right now your ATF Salesman can give you full information, even to approximate costs.

SET ASIDE DOLLARS ... NOW

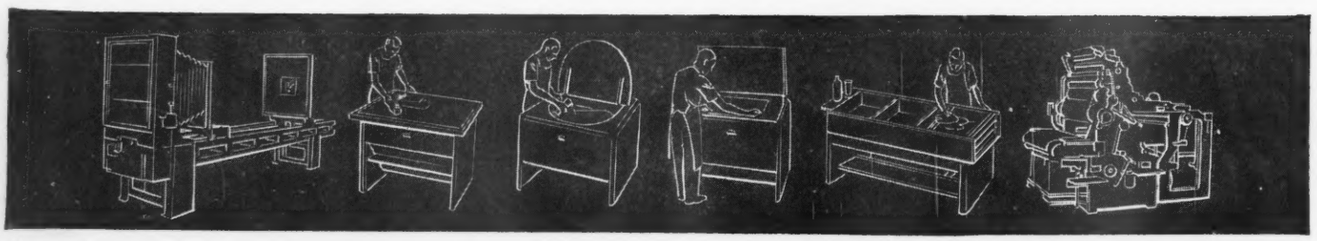
with ATF's Civilian Priority Delivery plan, for the presses you will need when the war ends. Full details from your ATF Salesman or upon request.

AMERICAN TYPE FOUNDERS

Offset Division

200 ELMORA AVENUE, ELIZABETH 3, NEW JERSEY

Branches and Dealers in Principal Cities



Front Cover Illustration

On the front cover of this issue of *Printing Equipment Engineer* appears a halftone illustration of a reproduction of a printing shop during the time of Benjamin Franklin. The photo is reproduced through the courtesy of The Franklin Institute, Benjamin Franklin Parkway at 20th St., Philadelphia. This particular reconstruction is planned according to the list of materials mentioned in the inventory made of Franklin's shop by Parker in 1766.

The two printing presses are original, one being a Ramage used in the shop which Franklin founded and the other having been owned and operated by the "Pietists" in Ephrata from about 1745 to 1827. This press was imported by Christopher Sauer of Germantown from the Luther Type Foundry in Germany

Coating Machine applies "hot melt" or thermoplastic film to pre-printed soap and food wrappers, magazine covers and many other products — Coatings prepared for specific uses

By RUSS B. LEECH*

**President, Standard Process Corporation, Chicago, Ill.*

A COMPARATIVELY recent development of interest to the Graphic Arts Industry is that of the transparent thermoplastic or "hot melt" method of coating paper for protection purposes. Incidentally, however, further expansion of the use of this method must await the finishing off of our present main objective of winning the war. This new method for coating paper is of sufficient importance that we will discuss it briefly here. There are innumerable uses for these various thermoplastic coatings but when the war started the ingredients of all of them were placed on the critical list and it is just now hard to get them except for government use.

The machine which is used to apply thermoplastic or "hot melt" coating on a previously printed web of paper, does so automatically at fairly high production speeds. In many cases, these "hot melt" coatings take the place of cellophane laminated paper for various purposes.

The uses of the various "hot melt" coatings in thin films on paper are numerous. Some of them are for food and soap wrappers, magazine covers, candy boxes, and the like.

To give an idea of the diversified uses to which these coatings may be applied, we mention the following: One concern may want it applied to wrappers for its products only as a heat seal. Another firm may want a coating which does not necessarily heat seal, but must be alkali-proof, waterproof and moisture-proof. Other manufacturers may want a wrapper with a coating which is not affected by greases or oils. Still others may merely want a protective coating on magazine covers, candy or other types of boxes. One large manufacturing firm intended using the "hot melt" coating on soap wrappers, the specifications for which were that the coating must be alkali-proof, colorless, tasteless and odorless. Just before the war started, a number of "hot melt" coatings which met a great many of these requirements were manufactured by du Pont, Dow Chemical, Hercules, Hilton Davis, Liquafilm Corp., and others.

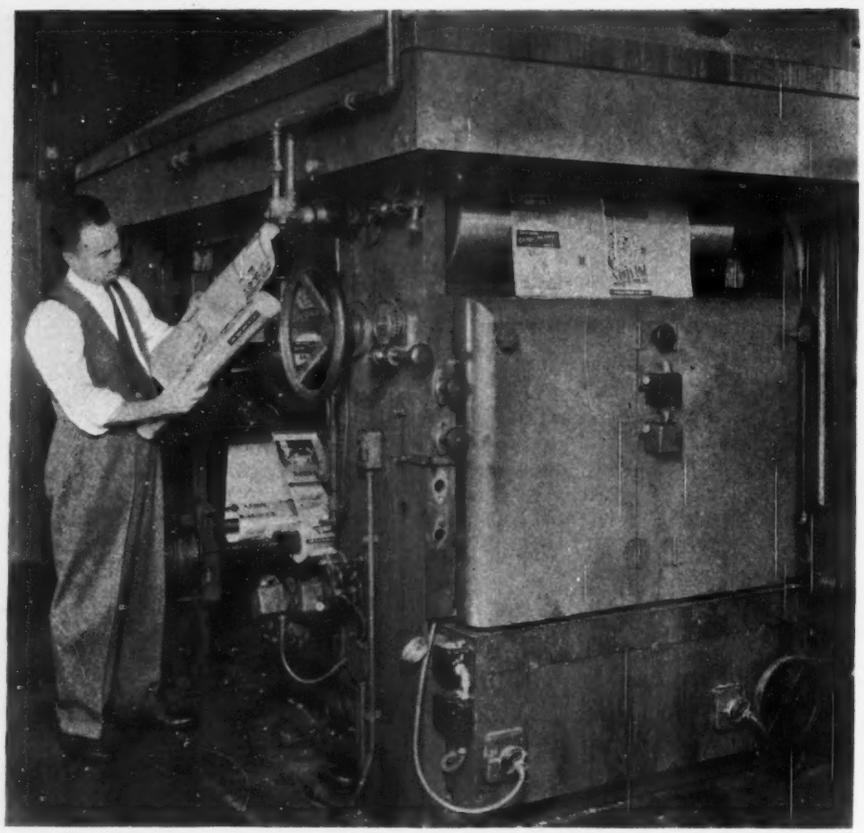
At the present time, the Government is using "hot melt" coatings for many purposes ranging from wrappers for motors and all kinds of machinery shipped abroad to envelopes or containers for dried eggs and other dehydrated foodstuffs.

Printing executives will be interested in knowing that the equipment used to apply the thermoplastic or "hot melt" coatings to a web of paper has been adapted from the rotogravure or intaglio printing process. The "hot melt" is applied to paper from a knurled cylinder. The width and depth of the dots in the cylinder control the amount of coating which is to be applied to the paper. The applying cylinder ("printing cylinder") rotates in a fountain containing the coating material. As the cylinder rotates it is cleaned by a doctor blade, leaving the "hot melt" in the dots only.

The applying cylinder, the doctor blade and the fountain all are electrically heated, the temperatures being controlled thermostatically.

The "hot melt" dots are applied to the paper web when it passes between the applying cylinder and a rubber impression roller.

After having been "printed" with the thermoplastic material, the paper now passes over rollers over which are mounted two very thin and flexible smoothing blades which contact the coated side of the paper at an angle, causing the dots to be smoothed out to a continuous film. These smoothing blades are heated by



View of "hot melt" or thermoplastic coating machine built in plant of Standard Process Corporation, Chicago. This machine, utilizing the intaglio process principle, coats pre-printed paper with a smooth film for protective purposes and to improve appearance. Among the products which can be coated are food and soap wrappers, candy box cover papers and magazine covers. In many cases, these coatings will take the place of cellophane laminated paper.

heating bars just behind them, which are also thermostatically controlled. Gas heaters keep the coating material soft from the applying roll to the smoothing blades.

After the coating has been smoothed and glazed, the paper web travels over two large cooling drums to a rewinder.

Mounted on one side of the machine is a pre-melter which holds several hundred pounds of the material. A valve control between the pre-melter and the machine itself permits replenishing the fountain with "hot melt" whenever necessary. Strip heaters are employed to keep the material soft. These heaters, also, are thermostatically controlled.

Temperatures throughout the machine can be held within 5 deg. F. anywhere between 200 deg. and 450 deg. F.

The overall length of the machine is approx. 10 ft. The production speed of the machine is determined by the ease of smoothing the material and how fast it sets to permit rewinding without offsetting. We have deposited on various papers for various purposes all the way from 3 lbs. to 10 lbs. to a ream of 3000 sq. ft.

General Printing Ink Corporation announces the appointment of Frederick W. Clayton as Purchasing Agent of the Corporation. Mr. Clayton started his ink career in 1910. He joined the American Printing Ink Company in 1913.

200 W. Industrial Fluorescent Fixture

FOR areas where high levels of illumination are required, or where high-mounting is necessary, Sylvania Electric Products, Inc., announces its new model HF-235R industrial fluorescent unit. This unit uses two 100 w. lamps and is of the same basic design as the recent 40 w. lamp models.

Suited to individual or continuous-row mounting, the fixture may be suspended by direct chain suspension, direct conduit mounting, messenger cable-clamp assembly, or surface mounting with bolt or lag screw.

This fixture conforms to all WPB requirements. The top housing encloses the ballast for protection, and complete hanging flexibility is assured through ½ in. knockouts located on 24, 30, 36 and 47¾ inch centers. Chain-hanging brackets are also built into the top housing.

A single piece of non-metallic reflector board, finished in baked enamel, furnishes high reflectivity (86%). Ease in maintenance is provided by conveniently located starters between lamps, and by quarter-turn "Captive Latches" which permit removal of reflector from the top housing.

Addition of a joining strap adapts HF-235R units for joining end-to-end in continuous row installations. The fixture is available on priority of A-1-j or better, and shipment is scheduled approximately two weeks after receipt of the order.

Goss Receives 4th Navy "E" Renewal

THE Goss Printing Press Company announces that it has received a fourth renewal of the Navy "E" Production Award for meritorious services on the production front. Word to that effect was received on December 30 by the company from Admiral C. C. Bloch, USN (Ret.). Admiral Block is chairman of the Board. This makes the fifth award to the Goss Company, the original one having been presented five days after the attack on Pearl Harbor. In the renewal citation is mentioned the fact that men and women in the Goss plant may well be proud of their achievement which is made possible through the maintenance of continued high standards. The Goss Company has expressed itself as feeling that this achievement has resulted to a considerable extent from the cooperation of publishers and printers.

Reaffirmation of Allegiance to Principles

IN commenting upon the results of the recent referendum conducted in the International Printing Pressmen & Assistants' Union, which resulted in the unanimous re-selection of the present official family, President George L. Berry commented as follows:

"Of course the unanimous re-selection of my associates and myself to office in the International Printing Pressmen and Assistants' Union of North America is complimentary, heartening, and significant, but it seems to me the important fact is that the International Printing Pressmen and Assistants' Union of North America has reaffirmed its allegiance to a policy of peaceful and constructive relationship as between its members and management in the newspaper, magazine, commercial printing, and specialty fields of America. The record manifests that through the instrumentality of our International Arbitration Contract we have maintained peace, and through peace we have found economic justice. This occurred prior to the first World War; it followed during the period of peace; and it is functioning during the present world conflict and will continue to respond when this war is over. The result of thirty-six years of testing the practicabilities of the relationship that maintains peace and the machinery for adjustment of all differences as between management and ourselves is proof positive of the practicabilities of the instrument. It seems to me if we are to save America from the more violent effects of the postwar period we must all come to understand the inescapable community of interest which exists as between the investor, management, and labor in the promotion of a stable and prosperous industry, and from it of course will come a stable government."

ANPA Composing Room By-Mail Clinic

IN THE December issue of *Printing Equipment Engineer* (Catalog Number) appeared a review of all the bulletins issued by the ANPA Mechanical Committee. The original clinic bulletins were produced by the sub-committees with the cooperation of ANPA member newspapers, and constituted the 1943 Conference in Print in lieu of the actual live mechanical conference. The by-mail clinic bulletins published up to that time were: Engraving Problems, Mailroom Problems; Color, Roto and Advertising Problems; Pressroom Problems and Stereotype Problems.

The Composing Room Clinic By-Mail was prepared by John A. Burke, Production Manager of the Gannett Newspapers, Rochester, N. Y., and Russell B. Miller, Mechanical Superintendent of the Bloomington (Ill.) *Pantagraph*, with the assistance of 100 ANPA member newspapers. In reviewing this complex composing room clinic, it is evident that a tremendous amount of technical and production material has been arbitrarily condensed into minimum space. However, as in the other clinics-by-mail, the subject matter reflects the imposition of war conditions upon newspaper production. Considering everything, those who are responsible for actual preparation of the Composing Room Clinic seem to have done an excellent job. *Printing Equipment Engineer* regrets it is not possible to print the Composing Room Clinic Bulletin in its entirety.

KEEPING NEWS CUTS AND COPY TOGETHER

To prevent news cuts and news stories from becoming separated during the setting and assembling operations before reaching the makeup, it was stated that some newspapers send stories with cuts to the composing room wih head, caption and story in one piece. Copy desk cuts off head and caption and sends them to headletter machines, then puts guide lines on story along with page number. Head and caption also have page number guide line. Keeping head with caption prevents the story getting away from the cut. Have the engraver send the cut sizes to the composing room in advance to speed makeup, thus giving time for laying of the base. After the cuts are finished, they are turned over to the newsroom and the guide lines are written on the backs of the cuts with a yellow or aluminum pencil.

AD COPY ON SMALL NEWSPAPERS

The request was made that a good method be given for handling advertising copy on small newspapers. When copy leaves the layout man, does one operator on display set all display and then pass type and copy to other operators, or does the type go to the dump and the copy go back to the layout man's spindle to be picked up by other ad operators? There were many answers to this question—all of them accomplishing the purpose of orderly procedure through the various machines for setting the various sizes of type. The majority of the answers indicated that display machines get copy first and then pass it to text machines, with type placed on galley on the dump.

One answer received from a printing plant indicates that the method used for routing ad copy is simplicity itself. In this plant there are two display machines, five text machines and two Ludlows. The ad copy is marked in a code which employs different colors. A line on the copy marked in red goes to the display machines; lines marked in blue go to the text machines; those marked in green go to the Ludlows. Routing of ad copy after marking is as follows: Copy goes first to the display machine operator who, after setting his type, puts a slug bearing the advertiser's name on the galley; the galley is placed on the ad dump. The copy is placed on one end of the ad dump and is taken from there by the text operators. After the text operators have set their type, they place it on the galley bearing the display, and the copy is given to the Ludlow operator. After setting his type, the Ludlow operator places it on the galley bearing the display and text matter, and the copy is now left with the galley. The ad foreman then gives the copy, galley of type, and the cuts to a compositor for hand assembly.

Another composing room reports that "We have found it best to allow advertising copy to remain on the machines until all lines are set. Various means are employed to expedite it there, but in no case would we shuttle it back and forth between machines and markup man's spindle. Large pieces of copy are cut apart, as is also copy which calls for a number of different sizes and faces of type. Each piece should be carefully "keyed" showing just what sizes and faces of type it is necessary to set. This method permits grouping of copy on the machines so that, for instance, all the 10 pt., all 12 pt., etc., can be set by one operator with the least lost motion.

Other detail methods are mentioned, such as the typewriting of display lines and combination figures at the service desk. The markup man marks the copy for the machines, using numbers to designate faces. Large complicated ads are photostated in duplicate to keep the original layout intact. In one plant using 14 ad machines, wire baskets at the ad dump are numbered according to the numbers of the ad machines. The numbered pieces of copy are leposited in the baskets. Red metal flags attached to each basket are turned up when copy in any basket should be given preference. After setting the copy, the operator returns type and copy to the ad dump where it is collected on galleys with all display, text, cuts and signatures ready for assembling.

FIXED NEWS OPERATORS

Several non-metropolitan newspapers, for years, have established a production method by placing a fixed number of news operators at the disposal of the news room. This system, however, cannot be carried out without the fullest cooperation of the general management. One newspaper has frozen the number of columns of news in each issue so that the operators assigned can get out the paper. Thus, the editorial department knows how much type these operators can set. In this way, control over the cost of news composition is held. Unusual news breaks are rare and are taken care of by adding whatever is necessary to get it out. Whenever time is taken from ad composition, it is generally returned before the shift is over. It is reported by the newspaper using this system that there has been a variance between the budgeted news time and the actual time of less than 2% over the six or seven year period the system has been in effect.

CONSOLIDATING JOBS

It seems to be the general practice to consolidate specific jobs, such as dump and copy cutting, or dump and head setting. Many papers report doubling jobs. Comments indicate that the manpower shortage is taking care of the situation.

MAKEOVER CONSERVATION

Conservation of makeovers brought several replies. Among the ideas put into effect to reduce makeovers are: (1) Importance of impressing upon proofreaders and makeup men the necessity for thorough work; (2) By advancing ad copy three days before publication and having proofs in the day before publication; (3) On open pages of six or seven columns of advertising, efforts have been made to carry news that will remain unchanged throughout all editions. Corrections of ads on day of issue have been limited to price and point changes and availability of merchandise;

Formula for Newsprint Checking

By PALMER V. WELCH*

*Pressroom Foreman, Schenectady (N.Y.) *Union-Star*.

THE newest restrictions on the use of newsprint will force publishers to keep a close watch on their daily consumption to prevent running over the quota in the last few days of a period.

During all of 1943, our office has kept a positive daily check on newsprint consumed and the method we have used has worked out so well that I can recommend it to all who are interested.

In devising a formula for checking purposes, we first found the area in one page. In our case, the width of a page is 16 5/8 in. and the length is 22 3/16 in. Please note that the length of our page is 1/16 in. longer than the cutoff measurement of 22 3/4 in. This new length is used on the advice of our press manufacturer because of the faster feed of the printing cylinders, drag roller, etc.

Since the area of a ream of 32 lb. newsprint is 864,000 sq. in., 1 lb. is equal to 27,000 sq. in. Dividing 27,000 sq. in. by our page size which is 379.258 sq. in., we find that we should print 71.192 pages per lb. of newsprint.

By multiplying each day's gross press run by the number of pages and dividing by 71.192 we have the exact pounds of paper run through the press for that day.

A record is kept of each day's paper used, and from this record our manager can tell at a glance how close we are to our quota, and if necessary, he can make curtailments before a shortage has reached embarrassing proportions.

At the end of the month the wrapper waste and white waste are added to the total tonnage which has been run through the press. The result should equal the weight of "rolls opened" plus or minus any change of the weight of paper in butts. In our case, these figures have balanced to within an average of 0.0015 for 10 months. I believe this small discrepancy is due to our paper stock being slightly over the basis weight for about 3 months.

(4) One paper publishing morning and evening, states it has reduced makeovers between editions by more careful editing and makeup. News is segregated for the districts being served and is confined to one or two pages instead of scattering on many pages throughout the paper. Wherever possible, pages are made up of general interest, carrying strips, panels and features so they stand throughout the entire day. This enables the plant to use a makeup man as an operator for about two hours per day and also saves stereotype mats. (5) Makeovers are reduced in one plant by changing first edition from noon to 1:15 and the first city edition from 2:30 to 2 p. m. The later start on first edition makes it possible to make up a great many more pages with local news which run through the four editions. Another help in cutting down makeovers is with a dummy of each page. The editorial dethat of furnishing the editorial department partment fills in the dummy, sends it back to the composing room, and copy is routed off the copy desk in this manner.

EXCESSIVE ALTERATION CHARGES

With respect to reducing correction and alteration time, out of 100 newspapers reporting, 17 are charging for excessive ad alterations.

PREDATING PAPERS

Out of 100 newspapers reporting, only five papers predate.

BOLD FACE ALIGNMENT

Advice was asked as to what can be done to prevent bad bold-face alignment on line-composing machines. Some more or less remote mechanical causes are given. The most important cause is related to worn lower front matrix lugs. The suggestion is made that instead of sorting old fonts with new matrices, it is more satisfactory to put in a complete set of new lower case matrices and then use the matrices taken out to sort older fonts.

HAIRLINES

Someone wanted to know what causes hairlines from comparatively new matrices. A number of causes were given as follows: (1) Failure to thin-space lines to proper length, causing the casting of loosely justified lines; (2) Improper (angular or incomplete) lockup; (3) Justification springs too weak; (4) Mold disc advancing too far forward causing a binding on the matrix line; (5) Vise jaws worn; (6) First elevator slide banking screw set too low, thus preventing proper line justification; (7) The trouble may be caused by too much oil on the back mold wiper or parts with which matrices come into contact.

Pursuing the hairline problem further, the committee prints a reply from Mergenthaler Linotype Co., which contains additional suggestions for the cause and remedy of hairlines in slugs cast from new matrices. If brand-new fonts are run into machines without a thorough inspection and realignment or readjustment of all related working parts, it is quite certain that the new fonts will be exposed to interference and mechanical obstrcctions of various kinds which will damage them.

It is a matter of common knowledge that spacebands with rounded or undersize edges at the casting piont will perform satisfactorily when used with old matrices which have formed false side walls of metal and graphite, although they will immediately cause hairlines when used with new fonts.

The Mergenthaler Company cites the case of hairlines appearing in the slugs cast from a font of new 9 pt. matrices which had been run into an existing machine. The machinist found that the spaceband sleeves accumulated metal rapidly when used with the new font but the performance of the spacebands was normal when used with the older fonts. The plant machinist was very careful to clean his spacebands twice a day but had recently adopted powdered mica as a substitute for graphite. The metal accumulation on the spaceband sleeve after two hours' use was much greater than after a ten-hour period when the sleeves had been polished with graphite. This metal accumulation started to crush the sidewalls on the new font, opening up a vent for the metal to be forced in between the matrix and spaceband. The resultant accumulation was progressive. The machinist reported that the hairlines disappeared entirely within ten days after discontinuing the use of mica. The machinist was also advised to spot the casting point of the spacebands with mercurial ointment (blue ointment) for a short time to help eliminate the trouble.

The report also cautions against the use of certain metal fluxes in the melting hopper of Monomelts, in the pot crucible of the machine, or on the pot mouthpiece. At least a dozen serious cases of this kind have been traced directly to improper or excessive use of flux.

The worst epidemic of hairline trouble was due to the washing of matrices in cleaning solutions consisting largely of chromic acid. The effect of chromic acid on matrices is exactly the same as that of mica on steel spacebands. It creates a chemically clean surface and, in effect, acts as a soldering flux.

CLEAR 36 PT. FACES

The problem of securing clear faces on 30 pt. or 36 pt. headletter faces in line-composing machines is discussed. The executive asking the question stated a perfect face is secured on 24 pt. letter characters. The answer to the frosty face problem is to consider the factors an tackle the problem by a process of elimination. Metal temperature must be correct; plunger, well, and throat in the crucible must be clean; metal pot not too full; adjustment of the pot compression spring must be accurate; air vents in the mouthpiece must be open sufficiently to care for a large slug; in the case of watercooled mold discs, proper circulation must be provided, or, if air is used, proper speed of blower and air direction on the mold. It was also suggested that using preheated metal instead of pigs sometimes eliminates the chilling of metal in the pot when casting large slugs. Use of a 12-tooth motor pinion to reduce machine speed to about 5½ lines per minute is also suggested.

CORRECTING NEWS PROOFS

In correcting news proofs, it is the consensus of opinion that each operator should correct his own except at edition time, when a ring man is used. The advantage is that the operators see their errors, especially in style or machine errors. Where one or more operators' names are on a galley, the one who has the most errors corrects the proof, or the one who has a pi line corrects the whole galley regardless of the number of errors.

IDENTIFYING CUTS

Methods for identification marking of zinc cuts include electric pencils and dentists' drills. China marking pencils have been found satisfactory. American india ink is also used on patent backing. In some plants the engraver supplies a blueprint of each cut about 30 minutes before the cut is finished, so the makeup man can put the base supplied in correct size by the stereotype department in the form. One plant reports the use of a perforated gummed-paper sticker which is attached to the art. The supper two-thirds carries complete information as to name, address, etc., and the lower third carries the name for identification. The lower portion is detached by the engraver and is stuck to the back of the cut before delivery to the composing room.

CHECKING MATRICES AND SPACEBANDS

To check the quantity of matrices and spacebands in each machine, the first method is to screen metal trimmings through ½ in. mesh wire to recover matrices and spacebands. Keep 25 bands in news machines and 30 in long-measure machines and check every day when polishing them.

Another suggestion is that between the first and tenth of each month the operators are required to run out and count all matrices in each font. The operators' reports are checked against a master list. Fill the first 12 channels with 20 matrices; the next with 15 matrices, etc. A magazine which is uniformly filled needs only a glance to get the answer. Paint a mark on the spaceband box front rail to save time counting spacebands.

Another system is to have machinists use a maintenance system, cards that account for all matrices going into the machines. If any particular machine shows a high demand for matrices, a check for a period of time may be made to find the leak.

TIME SPACING OF FORMS

Respecting the sending of page forms to the stereotype department at regular intervals, it is stated that most plants have a regular schedule and try to follow it. All try to avoid sending in more than one form every 3 minutes, depending upon the kind and amount of equipment available to handle the load.

METAL CONSERVATION

On type metal conservation, one executive reports that as the result of a careful survey it was found that many ads or many sections of ads are repeated by certain types of advertisers. These ads are now saved. As a result, a considerable amount of type, sometimes whole sections, are picked up for reuse in new ads. While this plan is not always a time-saver, it does help in remelting and casting. Since many casts are repeated, some casts also are saved.

One executive reports the posting of a notice on the ad room storage. Consequently, ad men who cut off a short piece of border now put the long, useful piece back in its proper compartment which is near the miter saw.

Another conservation item is that in one plant type which was formerly held for a long time is not now held longer than two weeks.

VARI-COLORED COPY AND PROOF PAPER

Different color paper for identification of various types of copy and proofs are dsicussed. One newspaper comments: "We have AP using green paper, INS using pink paper, and UP using yellow paper." For proofs, the same newspaper uses pink paper for Sunday, white for daily, and green for special editions.

One plant uses blue paper to identify N. .Y. stock quotations. Another uses colored paper for editorial page matter and for classified kills.

Order blanks for ads in different colors, for

Get Behind Waste Paper Salvage!

THE Joint Committee on Government Relations of the Commercial Printing Industry, 461 Eighth Ave., New York, N. Y., is calling upon all printers to give wholehearted support to the newspaper drive to salvage waste paper. Two million additional tons of waste paper is the salvage goal.

The Joint Committee urges every printing group or association, or where there is no association, individual printers, to get in touch with the local newspaper committee in charge of the drive and offer assistance in any task that may be assigned.

To the average business man and householder, waste paper is a nuisance in peacetime. Today Americans are becoming more conscious of the fact that it is a war material necessary in the manufacture of essential equipment for the armed forces.

Shipments of waste paper to the mills must be increased at least 167,000 T. a month. The WPB estimates that over 1,250,000 T. of salvagable paper are available every month and that half of this—or 667,000 T.—will keep the mills running at peak production.

the afternoon, evening and Sunday editions, are used by one paper.

The most elaborate answer about the use of color identification of news copy is as follows:

"We have a card system, planned by the composing room and used for all news copy. The cards are 2½ in. by 3½ in., in three colors. White is for time copy, yellow for American or cable copy, and maroon for local copy. These cards are filled in at the news desk, and each carries information regarding the copy to which it is attached. Besides the guide line, there is coded information as to size of head, folio, cutlines, inserts, ads, or whatever else might be required composing room information for the particular piece of copy.

"In the composing room, the copy cutter removes the card and time-stamps it. If the copy is cut, the take numbers are recorded on the card, and it is then filed in lettered slots for future reference, if required. Reference to a filed card gives definite and prompt information regarding the time of copy receipt and the method by which it was handled. This dovetails with a system of newsroom-designed page layouts, and often makes for speedier page releases because a makeup man can get a story pushed ahead of others less urgent.

RECLAIMING SPACING MATERIAL

This question was asked: "Has a method been devised to save strip material and still not cause prohibitive distribution costs?" In the bulletin it is stated thirty-six plants report they save strip material when killing forms. Most of these qualify their answer by stating that they save material only of a certain length or longer or only certain of the larger point sizes, either or both. One answer analyzes this problem as follows: "Non-distribution can be carried to the point where it is foolishs. Great quantities of good material can be recovered and put back in the racks in less time than would be required to recast it. Take the middle road."

The reduction of the number of advertisers' proofs to show an appreciable saving, showed that out of 65 newspapers 35 have been able to reduce the number of proofs given to advertisers and 30 have not.

Not very many newspapers replied to the question related to outstanding contriubtions to conservation in the composing room. The answers received are epitomized as follows: "Would not say anything outstanding, but we try to watch the little things here and there which, when reckoned as a whole, amount to something."

One executive states that assembler slide brake facings (D-1459) are replaced with brass facings made from old Ludlow matrices so as to save assembler slide (D-1653) from wearing out.

TIME CONSERVATION

Another executive states that convenient to each makeup position, he has suspended by string, pulley and counterweight, a pair of slug clippers. This has overcome the old trouble of the clippers not being at hand when required, or being in the way when someone wishes to put down a galley of type on a makeup bank.

An executive reports: We have reduced the number of advertising machines from six to five by a better combination of type series. By so doing, we are saving gas and some power. After a period of years of operating two Ludlows, we have rearranged our flow of copy so that one Ludlow can handle the load. Thus we save power and gas on that machine also."

In 1944 . . .

By H. A. PORTER*

**Vice President in Charge of Sales, Harris-Seybold-Potter Company, Cleveland, Ohio.*

I AM proud that the Graphic Arts has recognized the fact that the winning of the war is still the biggest job confronting all industry and the nation. Long ago our own company plants were 100% converted to the manufacture of goods for war. We plan in 1944 to continue to concentrate upon this first job of winning the war.

But because we have not forgotten the constant repetition of "too little and too late", as it was applied to the early war period, we have attempted to prepare in post-war planning against a similar situation when our plants are reconverted to the manufacture of peace time products. Our studies have been intensely practical—we have based them on fact, determined in survey and in research. We have become extremely sensitive to the ever increasing importance of the offset-lithographic method. We have not forgotten the lesson of World War I in the amazing growth of offset after the termination of hostilities. Our surveys have shown that considerable Graphic Arts equipment has seen exceptionally hard service during the war.

In contacting our customers, that we might obtain a first hand picture of both their problems and their equipment needs, we have come to the conclusion that an exceptional amount of practical planning is being done. We find that the post-war problem of obsolescence is generally recognized to have greatly increased under the forced production methods of war. We have learned first hand, in this contact with our customers, with reference to their individual post-war situations that they realize the importance of advising manufacturers of their needs. This is sound and practical post-war planning; it is not conflicting in any way with the war effort of either manufacturers or printers.

In 1944 we plan to continue our research, that valuable time will not be lost in the tremendous and necessarily slow reconversion problem. We plan to continue our frank discussions of the present day values of used equipment and its potential shrinkage in value in post-war markets. We look forward to 1944 with renewed confidence as we come closer to victory.

Research Activities

Printing Plates Research, Inc.—A non-profit organization committed to development and improvement in duplicate platemaking processes. J. Homer Winkler, Secretary-Treasurer, 1501 Superior Ave., Cleveland, Ohio.

Graphic Arts Market Research—A division of The Graphic Arts Association of Illinois, Inc. Service deals chiefly in facts and ideas that will have a definite bearing on postwar planning for the printer, lithographer, lettershop owner and others in the Graphic Arts Industry. The Division may be addressed as above at 105 West Monroe St., Chicago, Ill.

Lithographic Technical Foundation — The Lithographic Technical Foundation, Inc., 220 East 42nd St., New York, N. Y., is marking the 20th anniversary of its creation by the lithographic and allied industries. It is now undertaking a national fund-raising effort for $1,000,000 to strengthen its resources, intensify research and educational activities and enlarge its services to lithographic and related fields. Maj. Gen. William Ottman, Secretary of the Foundation, who is chairman of the board of the U. S. Printing & Litho Co., and a vice president of the U. S. Playing Card Co., is national campaign chairman. Since its establishment, the Foundation has spent approx. $750,000. Today, according to a statement in the prospectus issued by the Foundation, there are more than 2500 plants doing lithography, in whole or in part. There are over 100,000 persons engaged in the trade—a 500% increase over 20 years ago. Up til the outbreak of the war, it is stated, the industry was doing a $250,000,000 annual business.

LETTERS
TO THE EDITOR

Prints from 33 in. Roll on Tubular

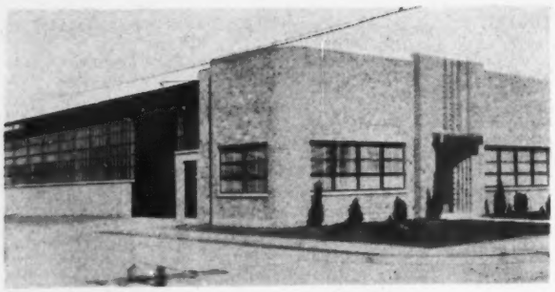
Dear Editor—On page 41 of the New England Conference report in the November issue of *Printing Equipment Engineer*, appears a paragraph about the running of 33 in. paper on tubular presses. In the paragraph it was stated "No paper in New England announced it had gone down that far (Ed.'s note—To 33 in. paper), but several were making inquiries into what difficulties would be encountered in so doing."

I was present at the Conference, but unfortunately did not attend the Tubular Clinic. On a board were displayed 51 daily New England newspapers. All of them were issued on a Wednesday. Among these was the Waterville (Me.) *Morning Sentinel*. This issue was printed from a 33 in. roll on a tubular press. We have been doing this for three years and have had success.

The bottom of the center clips are quite small so as to get the center margin, but as the two plates butt against them there is little strain. None of the clips have been broken since we changed from 34 in. to 33 in. roll.

The entire job of changing over equipment to accommodate printing on narrower roll width was done at very slight cost.

C. RALPH FITCH,
Mechanical Superintendent,
Waterville (Me.) *Morning Sentinel*



New Peninsular Steel Co. warehouse at 401 Kiser St., Dayton, Ohio, replaces first one opened in 1932 at 905 E. Third St.

Expands Activity

According to a recent announcement by The Timken Roller Bearing Company, Canton 6, Ohio, manufacturers of Graphitic and Alloy steels, The Peninsular Steel Co. of Cleveland, Ohio will expand its activity in Ohio for the distribution of Graphitic Tool Steels. The added territory will include Dayton and Cincinnati, formerly covered by Quality Steels, Inc., of Dayton and Frederick Steel Co. of Cincinnati.

EXECUTIVE ¶s

The Timken Roller Bearing Company announces the appointment of Paul Reeves as advertising manager. He is a native of Dover, Ohio, attended Staunton Military Academy and is a graduate of Carnegie Institute of Technology with a degree in Mechanical Engineering. He came with the Timken Company in 1929.

At a meeting of the board of directors of the Mergenthaler Linotype Company, two new vice presidents were elected: Arthur J. Mackey, son of President Joseph T. Mackey, and George W. Allison, former assistant vice president and assistant works manager. The junior Mr. Mackey is vice president in charge of the order and stock-control division, and Mr. Allison is vice president and assistant works manager. Arthur J. Mackey joined the Linotype organization September 9, 1930, following graduation from Princeton University. Mr. Allison, a graduate of Polytechnic Institute, Brooklyn, with the degrees M.E. and M.M.E., has been with the Linotype organization since June 20, 1919.

Appointment of H. E. Van Petten as manager of the B. F. Goodrich advertising division was announced by Frank T. Tucker, advertising director. In his new capacity, Van Petten will direct tire advertising as well as continuing in charge of the advertising of the firm's industrial products and Koroseal. Van Petten has been in the rubber industry for 16 years, all of that time in the advertising field, and has made his headquarters in Akron the last 14 years.

Charles McGuire, *Star Journal* and *Tribune* stereotype foreman since 1940, has been named assistant mechanical superintendent. A native of Duluth, Minnesota, Mr. McGuire spent 20 years as stereotyper for the Duluth *Herald* before joining the staff of the Des Moines

Charles McGuire has been appointed assistant mechanical superintendent of Minneapolis *Star - Journal* and *Tribune*.

Register and *Tribune*, later coming to Minneapolis. Peter J. Seemon has been appointed day stereotype foreman. Seemon served as assistant day foreman and has been a Minneapolis stereotyper for 30 years. W. C. Brown is mechanical superintendent.

The Harris-Seybold-Potter Company announces that R. V. Mitchell has discontinued his long association with the investment banking business and hereafter will devote his full time to the presidency of the company. As president of Harris since 1922, he has always been

R. V. Mitchell, President, Harris - Seybold - Potter Co. will now devote full time to company's presidency.

most keenly interested in the affairs of the graphic arts industry and of the various industry associations. Active in the establishment of the Lithographic Technical Foundation, Mr. Mitchell has helped guide its efforts as a vice president for many years. Mr. Mitchell is also a director of General Printing Ink Corporation of New York, Thompson Products, Inc., of Cleveland, Cornell Dubelier

Estimated Savings in 1944 Print Paper Consumption

ACCORDING to an announcement issued by Donald M. Nelson, WPB Chairman, on December 20, there will be a savings in print paper consumption in 1944 of over a million and a quarter tons. The savings will be accomplished through issuance of amended paper orders L-240, 241, 244 and 245 which became effective January 1, 1944. In addition, the savings will be augmented by the restrictions contained in specialty print paper orders which will be continued in 1944.

Mr. Nelson stated these regulations will arrest the sharply declining inventories in these industries (*i.e.*, the industries affected by the various orders—Ed.) and will bring consumption substantially into balance with the pulp supplies which will be made available to these industries under the new allocation program.

A skeletonized tabulation collated from Mr. Nelson's announcement is as follows:

	Base Period in Tons (1942)	1944 Consumption Tons	Saving in Tons
Books	142,036	108,280	33,756—23.1%
	(1941[1])		
Commercial	1,221,000	1,000,750	220,250—18.03%
	(1942)		
Magazines	941,000	711,500	229,500—24.4%
	Estimated First Quarter (1941)	**Estimated First Quarter**	**Estimated First Quarter**
Newspapers	869,296	663,587	205,709—23.6%
Greeting cards, I11. Postcards, Displays, Wall Paper			89,200—39%

[1]Non-Governmental purposes.

Company of South Plainfield, New Jersey, The Union Metal Manufacturing Company of Canton, Ohio, Dill Manufacturing Company of Cleveland, and The Copperweld Company of Glassport, Pa. He is vice president of the Associated Industries of Cleveland, and a member of the executive committee and a trustee of Aultman Hospital of Canton.

Charles R. Sherman, formerly director of purchasing for the General Printing Ink Corporation, has been appointed general manager of the Corporation's General Industrial Finishes Division. His background includes many years of experience in the ink industry as well as industrial finishes and protective coating experience. Prior to his present appointment, Mr. Sherman was sales promotion manager for the Geo. H. Morrill Company Division of the Corporation, in charge of color sales in the U.S.A.

Frederick J. Bittner, President of The Photogravure & Color Company of 207-217 West 25th Street, New York, N. Y., announces the election of George T. Bailey as vice president and general manager of The Photogravure & Color Company. Mr. Bailey is president of the

George T. Bailey, Vice President and General Manager of New York's Photogravure & Color Co.

American Institute of Graphic Arts and is former assistant printer to Yale University and manager of the Printing-Office of the Yale University Press. Since March 1941 he has been affiliated as vice president and director with William E. Rudge's Sons, Inc., of New York with which firm he will continue as director.

On Thursday, December 9, George and Mrs. Kennell observed their fortieth wedding anniversary. Mr. Kennell is a field representative for Certified Dry Mat Corporation. Lives in Cleveland.

Following a period in which he was engaged in war service, Norbert A. McKenna returned to the investment banking field on January 1, when he became a general partner of Reynolds & Co., Members New York Stock Exchange. He was the first director of the Pulp, Paper, Printing and Publishing Divisions of the War Production Board and instituted the pulp and paper allocation planning.

Mechanical Superintendent William Brown of the Minneapolis (Minn.) *Star-Journal* and *Morning Tribune*, was confined recently to Swedish Hospital in that city. On December 3 a number of the departmental executives called in a body at the hospital to present him with a framed testimonial. The wording was as follows: "For Bill Brown—While you're on the sick list, Bill, we of the mechanical departments of the *Star-Journal* and *Tribune* are proclaiming a Bill Brown festival, or Browntennial, during which each and every one of us is waging total war on all forms of inefficiency and error in our shop. It's our purpose to make you more proud of us by the time you come back on the job. The speedy recovery of our swell boss is the wish of all of us." The testimonial was signed by Pete Lucier, Al Noyes, Bill Davies and Fred Curle of the composing room; Charley McGuire, Pete Seemon and Don Little of the stereotype department; Ed O'Neil and Sammy Hanson of the pressroom; Leo Bord and Dave Curriden of the photo-engraving department.

President Walter Huber of J. M. Huber, Inc., announces the appointment of Eugene V. Lambert as publishers' advisor for that company. He is well known in the advertising and publication fields. He will make his headquarters at the company's main office, 460 West 34th St., New York 1, N. Y.

Certified Dry Mat Corporation has announced that Frank Tighe (pronounced Tye) has been appointed sales manager for the company. Previously he had served for 10 years on the sales force. For the period of the war emergency, Mr. Tighe's duties will be largely in the field of service to stereo plants, coordinating the activities of field men and spending much of his time in the field with them.

Donald S. Klippert has been appointed Assistant General Manager of Sales of the Timken Steel and Tube Division, according to a recent announcement of The Timken Roller Bearing Company, Canton, Ohio. Klippert had been Cleveland District Manager of the Timken Steel and Tube Division. Appointment of Robert P. Donnell to succeed Klippert as Cleveland District Manager was made at the same time. Donnell has been a Timken Steel and Tube Division Metallurgical Engineer specializing in aircraft applications for the past six years.

Ralph L. Wilson, former Chief of the Constructional Steels Section of the Metallurgical and Conservation Branch, Steel Division, of the War Production Board in Washington, D. C., became Chief Metallurgical Engineer of The Timken Roller Bearing Company, Canton, Ohio, January 1. Wilson, 44, is a graduate of Lehigh University, where he received the degree of Electrometal-

Ralph L. Wilson is now Timken's Chief Metallurgical Engineer.

lurgist. He is well known for his work on the Properties of Metals at Elevated Temperatures and has contributed many articles to the literature on this subject. Wilson is active in the affairs of the American Society for Metals, of which he is a former trustee, and in the American Society for Testing Materials, the American Society of Mechanical Engineers, the American Petroleum Institute and in the American Welding Society.

This building was recently purchased by Tingue, Brown and Company at 507 Peters Street, S. W., Atlanta, Ga. Those appearing in the picture reading from left to right are: William M. Tingue, Secretary-Treasurer; Charles W. Clines, Asst. Manager, Atlanta Office; Robert H. Dunham, Sales Manager, New York, Asst. Vice President, and Gilbert G. Sanborn, Manager, Atlanta Office, Asst. Vice President.

The building is of brick with steel casement windows and will serve as a processing plant and sales office for the following States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas with the exception of El Paso.

Technical Literature

THE following described technical bulletins were received too late to be included in the Technical Literature Section of the 1944 P-Double-E Printing Equipment and Supplies Catalog published in December.

These bulletins may be obtained either from the manufacturer direct or if you will address your request to *Printing Equipment Engineer*, we will be pleased to pass it along to the manufacturer.

Composing

Metal-Melting Pots

General Electric Company, Schenectady, N. Y., has available two bulletins upon the subject of electric immersion metal melting pots for melting lead, solder, babbit, tin and type metals. The first of these is entitled **Metal-Melting Pots with Calrod Heating Units,** Bulletin No. GEA-164E, consisting of 12 pages with illustrations.

In an eight page Bulletin No. GEA-3382, entitled **How To Select Electric Equipment for Melting Soft Metals,** are illustrated and described three typical standard electric melting pots. Also described are standard immersion heaters for electrifying existing pots.

Plate Making

Metal-Melting Pots

General Electric Company, Schenectady, N. Y., has available two bulletins upon the subject of electric immersion metal melting pots for melting lead, solder, babbit, tin and type metals. The first of these is entitled **Metal-Melting Pots with Calrod Heating Units,** Bulletin No. GEA-164E, consisting of 12 pages with illustrations.

In an eight page Bulletin No. GEA-3382, entitled **How To Select Electric Equipment for Melting Soft Metals,** are illustrated and described three typical standard electric melting pots. Also described are standard immersion heaters for electrifying existing pots.

Pressroom (Letterpress)

Photoelectric Register Control for Multicolor Presses

Bulletin No. GEA-3702 is a four page illustrated reprint of an article by W. D. Cockrell which appeared in the August 1941 issue of **Printing Equipment Engineer.** Published by General Electric Co., Schenectady, N. Y. Mr. Cockrell described in simple fashion GE's means for keeping color register within one-thousandth part of 1% on web printing presses.

Full-Voltage Magnetic Combination Starters

Eight page illustrated bulletin published by General Electric Co., Schenectady, N. Y., contains description of starters for starting duty under any condition indoors or out.

A-C Preset-Speed Printing Press Controllers

This eight page fully illustrated bulletin No. GEA-3663 published by General Electric Co., Schenectady, N. Y., contains detailed descriptions of a.c. controllers for all kinds of presses, folders, creasers and the like. Ranges: 1 to 5 h.p. and 7½ to 15 h.p.

Tri-Clad Induction Motors

Bulletin No. GEA-3580B, consists of 12 pages, fully illustrated, published by General Electric Co., Schenectady, N. Y. In it are described the features and construction of motors made in sizes up to 125 h.p.

Renewal Parts and Supplies Catalog

General Electric Company, Schenectady, N. Y., has available a 96 page and cover illustrated catalog of renewal parts and supplies for GE motors, controls, switchgear, soldering irons, glue pots, thermostats, lighting equipment, transformers, recording and testing instruments, testing instruments and insulating materials. Published particularly in the interest of keeping existing electric apparatus operating in wartime.

Miscellaneous

Electronics—What It Is and What It Means To Printing Industry

This is an eight page illustrated reprint of the article by that title by W. D. Cockrell, which appeared in the July 1943 issue of **Printing Equipment Engineer.** The principles of electronic control and the application of electronics in the printing industry are discussed by the author. General Electric Co., Schenectady, N. Y.

Metal Marking Equipment for Industry

Wm. A. Force & Co., Inc., 216 Nichols Ave., Brooklyn 8, New York, offers a 20 page illustrated bulletin entitled "Metal Marking Equipment for Industry." Described are hand and power presses for automatically indenting figures and insignia on metal and other hard material. Embossing heads for embossed numbering are illustrated and described. High speed knurling machines also are described, as are steel hand stamps and dies. Type and figure styles are illustrated. A very complete marking tool catalog.

What Management Can Really Do to Reduce Absenteeism

If there are any printing executives who are troubled with the problem of absenteeism, we would suggest that they get a copy of this Report No. 144, published by George S. May Business Foundation, 111 So. Dearborn St., Chicago, Ill. The report was prepared after nationwide and localized surveys were made. Findings were then correlated. The full report is printed to show clearly that there are two sides to the absenteeisms question—one for management and the other the case of labor. Impartial analysis shows that practically all of the problems presented by absenteeism can be solved by intelligent management and supervision.

Offset-Lith

Full-Voltage Magnetic Combination Starters

Eight page illustrated bulletin published by General Electric Co., Schenectady, N. Y., contains description of starters for starting duty under any condition indoors or out.

A-C Preset-Speed Printing Press Controllers

This eight page fully illustrated bulletin published by General Electric Co., Schenectady, N. Y., No. GEA-3663 contains detailed descriptions of a.c. controllers for all kinds of presses, folders, creasers and the like. Ranges: 1 to 5 h.p. and 7½ to 15 h.p.

Tri-Clad Induction Motors

Bulletin No. GEA-3580B, consists of 12 pages, fully illustrated. General Electric Co., Schenectady, N. Y. In it are described the features and construction of motors made in sizes up to 125 h.p.

Renewal Parts and Supplies Catalog

General Electric Company, Schenectady, N. Y., has available a 96 page and cover illustrated catalog of renewal parts and supplies for GE motors, controls, switchgear, soldering irons, glue pots, thermostats, lighting equipment, transformers, recording and testing instruments and insulating materials. Published particularly in the interest of keeping existing electric apparatus operating in wartime.

"Fluid Type" Specimens in Miniature

IN the October 1943 issue of *Printing Equipment Engineer* was published an article entitled *Fluid Type*, in which it was explained how unusual type and lettering effects are being secured by The Mono-Trade Co. of Minneapolis, Minn. This firm produces reproduction proofs or negatives for photo-engravers and offset-lithographers. It was among the first to install a standardized photo-lettering camera and equipment for "distorting" type to secure unusual typographic effects.

Since publication of that article, we have received several specimens of the work which is being done with similar equipment by William L. Bremer, Bremer Typographic Studios, 704 Second Ave., Rea Bldg., Pittsburgh 19, Pa. These are shown in miniature form in the accompanying two columns on this page.

Acquires Exclusive Rights

The exclusive manufacturing and distributing rights to the Flinker Fountain Divider has been obtained by The Printing Machinery Company, 436 Commercial Square, Cincinnati, Ohio.

The Flinker Divider was invented by the late George H. Flinker and was more recently manufactured by the Flinker Ink Divider Company, now dissolved.

The Printing Machinery Company expects to make the divider available to printers and publishers as soon as present restrictions permit the acquisition of the necessary materials and its manufacturing.

Acquires New Properties

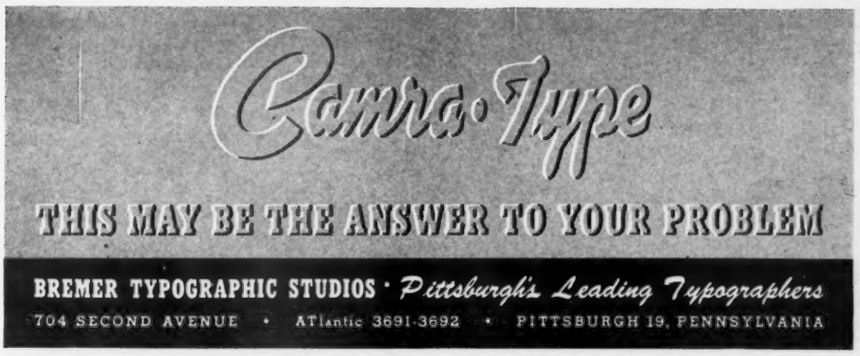
The Morley Company, of Portsmouth, announces the purchase on December 20 of the Herkimer Fiber and Holed-Tite Packing Divisions in Herkimer, N. Y., from the International Paper Company of New York.

The Holed-Tite Packing Division manufactures various molded pulp packing devices, including cartons, flats and molded pulp fillers for shipboard egg cartons, molded pulp packing sleeves for bottles and for radio tubes.

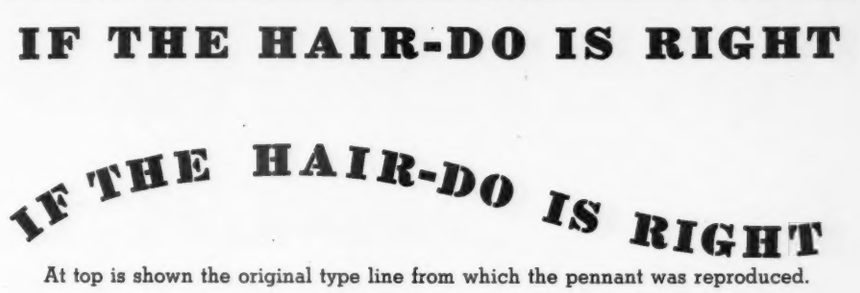
The Herkimer Fiber Division consists of a paper board mill which for many years has manufactured leatherboard and fiber board.

The Holed-Tite Packing employs approximately 30 people, and the fiber mill, when running, employs an additional 100.

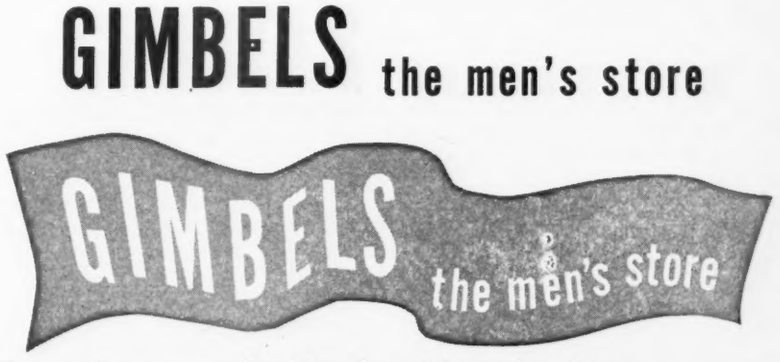
Morley considers that molded pulp products offer an excellent peace-time new product. A new research program is contemplated this year and is the guidance of Morley's Technical Director, Howard J. Blake, aimed at manufacturing new types of products from a molded pulp base.


Camra-Type
THIS MAY BE THE ANSWER TO YOUR PROBLEM
BREMER TYPOGRAPHIC STUDIOS · Pittsburgh's Leading Typographers
704 SECOND AVENUE · ATlantic 3691-3692 · PITTSBURGH 19, PENNSYLVANIA

At first glance the two top lines appear to have been embossed on the surface of a white blotter. The original measured 8½ in. by 8⅜ in.



At top is shown the original type line from which the pennant was reproduced.



This wave line was reproduced from the straight type line above it.

A regular type reproduction proof is shown at left. To see what Bremer Studios did with it, look below.

At right is the panel which was made from the type reproduction proof shown above.

At one of Joe's remarks, Mom turned from the stove where she was fixing pancakes. She slammed down a plate of cakes upon the table and cried: "So, Delly Kate is oversize, hey? . . . I suppose that makes me a big fat slob, too? . . . You skinny little shrimp! All my good cookin' wasted on you . . . Don't you dare run anybody down!"

Joe Bloe—Foreman

By WILLIAM WYATT WARFEL

THUS FAR:

In Tincup, Colo., The Daub Publishing Co. has been expanding in business volume over the years—is now having growing pains. The executive personnel hasn't kept pace with company growth.

SCHMEAR N. DAUB, president and general manager, operates the company strictly on a one-man basis.

JOE ("Fluttergut") BLOE is plant foreman. His responsibilities have been increased over the years without increased authority or salary.

OSCAR GRAPHCHART (distant relative of Daub's wife) visits and makes an impression upon Daub. Joe resolves to learn chart making to express his plant problems.

MOM is Joe Bloe's wife.

ERNIE, philosophic bartender in nearby saloon hands out rough advice with respect to the human element angle.

GORIE DAUB MESSE, a shirt-tail relation, is foreman of the ink grinding room.

O. H. YEZZIR, assistant office manager, and

BULLAM GOODE, assistant sales manager, find it convenient to claim credit when talking to Daub for much of Joe's executive work.

PARSON DOMINIE, advises Joe how to handle Daub for better executive relationship.

In the previous Part VIII, Daub demands Joe's presence at the office in spite of the fact he has just granted him his first vacation with pay. Joe goes down to the office. Daub doesn't appear—and Joe enters Ernie's place, seeking solace in liquor.

IX

BLUE Monday slips into existence after an unusual Sunday with the cold finality of a burnt-out motor. There it is. It just cannot be tossed away or forgotten. Like the motor, there are memories of what happened the day before, and the awful fact that power is lacking to start the new day's work.

Mom woke up with the dream in her eyes of the Old Man's applesauce; she mentally pranced around on a Hollywood stage coyly refusing Clark Gable's kisses. Memory flashed stereopticon pictures of her former successes: the recitation in Sunday School at the tender age of eleven, the wavering solo rendition at graduation time of "Mighty Lak a Rose," and the city slicker who admired her voice at seventeen and wanted her to to study opera in New York. She fingered her worn-out permanent wave as if she were playing a musical accompaniment to her dreams.

The clock bonged six. Mom awoke with a start from her reverie. A new day, a new week, a new era was in prospect. But, more important than anything else, the week's wash loomed up as the first business of the day. In a few minutes the coffee pot was steaming and the washing machine was clanking in the basement like a worn out connecting rod.

When the clock chimed half after seven, Mom banged on the radiator pipe to announce the beginning of another day to Joe. She went up stairs and fixed fresh coffee and oatmeal. Joe was still blissfully snoring as persistently as the chug of a railroad freight engine climbing a heavy grade. Vigorous shaking and rump slapping merely added to the crescendo of sound; the beat changed cadence but not volume. Mom shrugged her shoulders, gave it up as a bad job, ate breakfast alone and went on with the week's washing.

Half of the wash was on the line by ten o'clock. As Mom swung a heavy sheet, the line moved and the sheet bit the dust. Looking around to lay the blame, she saw Joe's young friend, Frank Ness Daub, dodging behind the house. Mom charged in pursuit and Frank, pretending a lame foot, allowed Mom to catch him.

Tweaking his ear as she did when he was a little boy stealing cookies, she yelled:

"Ain't you never going to grow up? You young hellion. I have half a notion to lay you over my knee, take down your pants, and lam you good." Mom's threat was like a rain cloud hiding a moon-faced sun.

"Aw, Mom, I was only foolin'," snickered Frank Ness with a grin. "Honest, I'm sorry. I'll pick it up and wash it for you if you will give me a cup of that good coffee only you know how to make." Mom relaxed into a proud motherly manner. As Frank saw the effect of his words, he said, "I can smell some swell oatmeal, too. Say, where is your irritable lord and master? You know, the guy you push around. Gee, you sure have to have a good disposition to get along with that egg. Where is he?" Frank's teasing completely unruffled Mom's feathers.

Giggling, Mom took Frank by the hand and headed for the kitchen. This was a familiar spot to Frank Ness. In the early day's of Delly Kate's reign, he frequently sought sanctuary under the protecting wing of Mom and Joe. Frank was just out of knee pants when Junior was born. On many occasions he poured out his hatred for his step-mother, Delly Kate, on Mom's lap while filling his pockets with Mom's homemade cookies.

On the way into the house Mom explained that Joe had been out late the night before celebrating his first real vacation. As Mom stirred up the fire to again start breakfast, she said, "The lug sure had a good load on. See if you can shake him loose."

Frank threw his hat and coat on the chair and went to work on Joe. The result was merely some grunts and several changes of position. The snores continued with increased vigor and tempo. Frank then soaked a towel in cold water and held it to Joe's head. Joe came to with a rush, sputtering and then yelling bloody murder. As he sat up and pulled away the towel he saw Frank Ness. He said weakly:

"Ain'chu got nothing better to do than mess around here? Are you aitchin' for a slap on the puss? What's up?"

"The Old Man was shooting off this morning and looking all over the lot for you," said Frank Ness with a chuckle. "I guess you are in his hair again. What have you done? Did you boot one of the shirt tail relations?"

With many a grunt and groan while shaking his head negatively, Joe got out of bed. Frank Ness located the slippers and bathrobe. Joe doused his head with water and then both ambled into the kitchen and waited until Mom removed the remains of her morning's work so they could sit down. After two cups of strong black coffee, Joe said:

"I'll tell you how it is. A week ago the Old Man gave me two weeks' vacation.

. . . the coffee pot was steaming and the washing machine was clanking in the basement like a worn-out connecting rod . . . Half the wash was on the line by ten o'clock.

Yesterday he called me up and asked me to bust down to the office for something very important. I beat it right down. He never showed up. When I called his house a couple hours later, he acted like I was a nuisance. Delly Kate tried to get the phone away from him and bawl me out for annoying him on Sunday. That's all I know about it."

"So that's how the land lies," snickered Frank. "The old trollop raised hell about your call. The Old Man never let on he had a date with you. She was threatening to come down to the office today and fire everybody."

"Did she include you?" said Joe inquiringly with a lifted eyebrow.

"Not this time," said Frank Ness seriously. "I can't figure it out. Lately she has been laying off me. Gee, but the Old Man took it on the chin yesterday. Her gall bladder musta been working overtime. Well, he married her for her dough. It's like your Grampa said once, 'When you make your bed, you must lie in it.' Only, he ain't been lying in it. He's been squirming like a night crawler on an oversize hook."

"Wow, that's the time you said a mouthful," Joe observed. "Delly Kate sure is oversize. That's no baloney. I bet she packs a mean wallop."

Mom turned around from the stove where she was fixing pancakes. The last remark had started a train of thought. Mom slammed down a plate of cakes on the table and cried:

"So, Delly Kate is oversize, hey?"

Joe, asleep at the switch, looked up at Mom with a sleepy smile and said:

"She's just a big fat slob, and you know it."

Mom turned purple. Joe knew he was in wrong. Frank realized a family spat was in the making and tried to change the subject. Mom was not to be swayed. She waved the pan cake flopper under Joe's nose and bellowed:

"Look here. You got drunk the night I married you. You promised me the moon is made out of gold. The one I got was full of cheese. Right now I am wearing one of Delly Kate's old dresses. It fits me where it touches.

I suppose that makes me a big fat slob, too; Don't you dare run anbody down till you can do better than they can. You look like the devil. You smell worse. The next time you come home potted I'll lock you out. Booooohoooo—"

Joe dodged into the bathroom. Frank cleaned up on the pancakes. Mom dried her eyes and fixed more cakes. After Joe finished shaving and dressing, he sat down and ate pancakes till they ran out of his ears. As Mom saw both the boys relishing her handiwork, her tantrum subsided. The conversation was resumed as Joe said:

"Frank, I can't seem to get on the right side of the fence at the right time. I never smell out the right guy when he is hot. Gee, I'll never forget the time I got in wrong with Delly Kate."

"I remember that time," said Frank. "What happened? All I knew about it was that Delly Kate told pop he would have to hand back the dough if you were not fired instantly. What did you do?"

"Whattya mean, hand back the dough?" asked Joe.

"Heck, don't you know the story?" queried Frank. "The Old Man never could hold a job anywhere, so he had to go in business for himself. He borrowed the spondulicks from Delly Kate. He promised to pay her back in one year. Then he married her to get out of paying her back. The payoff will come some day. Wait'll she finds out Lot O. Sheckels has control now. The Old Man will have to take a long business trip for his health. Say, you didn't tell me, how did you get to be the fly in her ointment?"

"It was this way," said Joe. "I was boss of the rubber band reconditioning department at the time. Delly Kate called up the Old Man and somehow the call was put on my phone. She demanded I send up three men to set up bridge tables for her hen party. I told her she was screwey and full of soup. I hung up and then like a damphool I called back Tillie Foan to ask who the nut was on the line. The lines were mixed up and the old crutch heard me ask the question. It was only because you stuck up for me that saved my job. Your Old Man stuck me back in the waste paper room for two years."

The boys discussed their problems for several hours. Each could point out the other's faults, mistakes, and slipups. Both agreed they lacked vision and the ability to utter diplomatic words at the opportune time.

"Say that ain't why you came around here at this time of day," said Joe, "How high is up? What's the dirt? Spill it."

Frank Ness was bursting with news. But, like an aggravating female, he held his peace while reflectively looking into his coffee cup. His demeanor assumed a serious aspect and soon Joe was really worrying. Finally Frank Ness blurted out:

"Joe, do you remember Purdy Tite, the assistant cashier down at the bank?"

"I oughta 'member him," said Joe. "Your Old Man was threatening to shoot him if he didn't stay away from your sister. Soon after he wanted to call out the militia to ketch him. Hot pups: Remember the night of the wedding? What a time: We didn't get the paper out the next day. Seemed as if the Old Man bought up all the likker in the county. What about him? He's a good guy. Shell out. Come on. Lay it on the line. Open up."

Frank Ness could hold the news no longer. His Adam's apple jumped around like a fiddler's little finger in the midst of a symphony solo. His nostrils quivered like Valentino's in a love scene. He described the drama at home when the Old Man tried to force his new son-in-law into a business, and how the newlyweds both got jobs in a determination to make their own way without help from the Old Man or domination from Delly Kate. Joe lifted his eyes prayerfully as if he had heard the worst, but Frank Ness reserved the hot news until the last. It reminded Joe of Grampa's beating around the bush and the explanation, "The skim milk comes first, then the cream." With a lowered voice and in a confidential tone, Frank Ness said:

"Joe, I was out to Purdy Tite's house last night. Lot O. Sheckels took a shine to him several years ago and pushed him ahead in the bank. Now he wants to put him in at the *Bladder* as controller. The Old Man will have a hemorrhage when he finds out that Purdy Tite has the only key to the cash box."

At first Joe was merely amused at the coming change in executive personnel. The slap at the Old Man seemed poetic justice. But, soon the reaction set in. Joe ran over the effect upon his own position. Frank Ness' brother-in-law had always been pleasant enough. But, some of Purdy's lectures on thrift had not always set well. In the past it was hard going to get anything out of the Old Man. This change might be all for the worse as far as Joe's personal fortunes were concerned. So, Joe, after some reflection said:

"Yeah, that's O.K. for you. But how about me? I'm getting half enough do-re-me now. By comparison with Jack Ash and John Donkey, I ain't gettin' one tenth of what I should. I suppose the first thing that guy will do is cut my wages. If that happens, Mom will have to take in washing."

Soon, with that ability men have of getting excited over anticipations, Joe was in a lather. He shook his fist figuratively at Purdy Tite and told him to shove the job up his bazooka.

Just as Joe reached the climax of his speech of resignation, Mom came in with an armful of wash. Intuitively she felt the impending doom and began to blubber. Joe melted like butter on a warm plate. He put his arms around her and told her the sorry story of his fears. She went limp as tears trickled from her eyes. Joe's attempts to comfort her merely increased the boo-hoos.

"Both of you are nuts," shouted Frank Ness as soon as he could get in a word edgewise. "What the hell do you think I am tipping you off for? Both of you gotta keep your traps shut. Don't mention it in front of the kid. Last night we talked over the whole deal. Purdy Tite don't throw dough away, but he does have good sense. He'll trim the sails—and expense accounts—of the baloney experts. The guys who do a job will get paid. The rest will be kicked upstairs or get canned. All you have to do is to tend to your knitting."

"You mean Joe ain't gonna get fired," said Mom happily while drying her eyes.

"That's right," said Frank. "Joe'll have a better job than ever before."

"Will he get a raise right away?" Mom asked querously while powdering her nose to remove the evidences of her disturbance. "I'll go right down to the bank and see Purdy Tite. I'll do it right now. I'll tell him how hard my Joey works. If it wasn't for Joe—"

"That's enough out of you," shouted Joe, again taking the position of the masterful male. "You stay home where you belong, or I'll fan your seat like I did the time you started going home to your mother. Now, dry up."

Joe walked out on the porch, followed by Frank Ness. Mom's outburst had annoyed him. He wished he had not been so rough with her. Again he realized the truth of Gramps's remark, 'If you would have a hen lay, you must bear with her cackling.' Frank Ness looked at his watch and said,

"Joe, I have a lot more dirt. I'll tell you about that later. If you are going to see the Old Man, we must hurry. It's way past eleven."

"Let's stall till after lunch," said Joe with a questioning smile. "Besides, I don't like serial stories. You got me over a barrel. Gimme the rest of it. The Old Man can wait. He may be in a better humor then. He might even forget what he wanted me for. Let's park here. Come on, dish it up."

"Now you are learning," said Frank Ness. "All you have to hope for is that the Old Man ain't forced to choose between fish or eggs for lunch. Delly Kate read somewhere that fish is brain food, so she uses our meat stamps to buy chopped steak for the dogs."

After cautioning Joe not to let the effect of the coming changes reflect in his attitude toward anyone at the *Bladder*, Frank Ness spilled the rest of the cream. Joe's rapt attention encouraged Frank Ness to detail how he was finally called into conference with Purdy and of his unquallified support of the program. Joe bounced out of his chair like a shot from a gun when Frank Ness said:

"I had that notebook of yours in my pocket when I went over to Purdy's house last night. I showed Purdy and Lot O. Sheckels the organization chart you made. Purdy didn't catch on right away but Lot O. Sheckels looked at it for a while and then started cussing a blue streak. Holy mackerel! He musta been a sailor or worked in a pressroom somewhere. I never had much use for the old loan shark before—"

"What did he say?" butted in Joe, all excited at the thought of his handiwork being shown to the richest man in the state.

"You have enough education now," said Frank seriously. "Remember the time your Grampa sneered at me and said, 'Every time you curse you betray your lack of vocabulary'?"

"You're off the beam," cried Joe. "What I wanta know is, what did the old skinflint say about my chart? Did he like it? What'd he say? Loosen up. What did he say?"

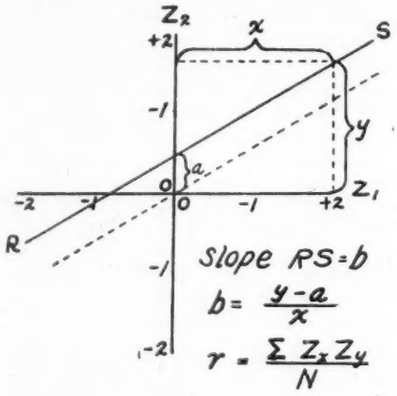
Frank Ness persuaded Joe to sit down and then he detailed the reactions of the *Bladder* angel. How Lot O. Sheckels mimicked the Old Man when he made a grandiose speech about the *Bladder* 'family'. Frank Ness hopped out of his chair and demonstrated the way the old boy strode up and down the room while expressing himself forcibly. Then, Frank pulled Joe's cork completely when he said:"

"Lot O. Sheckels asked me if you were a new man. Said he never heard your name mentioned in connection with the *Bladder*."

"Did'ja tell 'im I do all the work in the goddam joint?" hollered Joe, beside himself with rage as he stood up to automatically remove his coat as though to pitch in where he was needed.

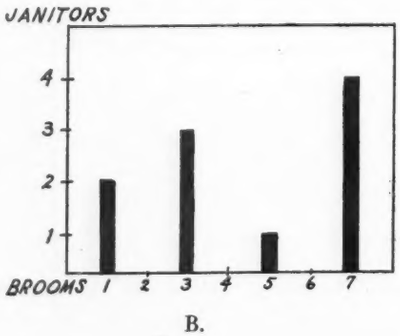
JOE BLOE'S NOTEBOOK—6

Oscar's stuff is so old it gives me the willies. So much of it is just plain horse sense. Some of it makes me think of the time the farmers got together to start a bank. They asked Grampa to be an officer. He objected and said he knew nothing of business and finance. The old reprobate who was stitching the thing together sold Grampa a bill of goods when he said, "It is men who make a company; not buildings, bank accounts or corporate charters."



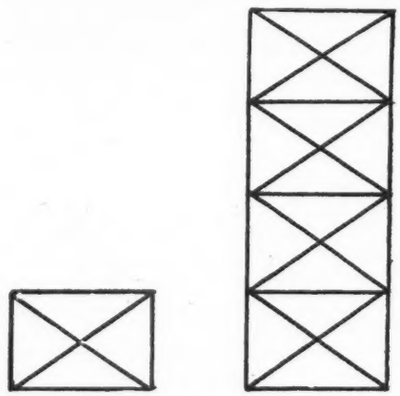
A.

A—This is one of the theoretical formula diagrams Oscar put on the blackboard for use in figuring up some of this chart stuff. For my money it's the malarkey. Grampa did all right without algebra, calculus, trigonometry and logarithms and so can I get by without this paraboloney.



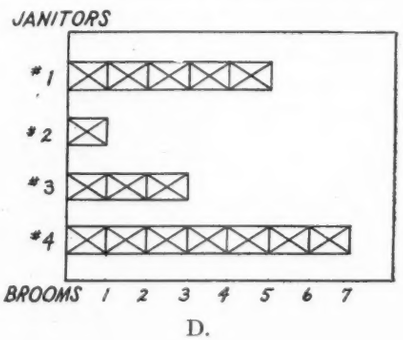
B.

B—The simplest way is to make a bar chart. This is a cinch but it don't look right. I quess I got my abscissa in the wrong place. Well, Grampa always said, 'If at first you don't succeed, try, try again.' If she ain't right straight up and down, I'll hang 'em on the line sidewise.



C.

C—Sometimes I go ahead on something without understanding the real dope. So, when I look back in the notebook, it seems as though I am skipping something. So, I might as well backtrack. That way I'll save time later on. Here is a 1 : 4 comparison. Only to make it simple and easy, I use four boxes piled on top of each other. Them four boxes can represent brooms—but not janitors.



D.

D—Here are the boxes (to represent brooms) hung sidewise. It's still cockeyed but I can see I am on the right track. The next time I make this one, I'll turn her around. I don't know if this stuff is going to go over with the Old Man but nobody can't say I ain't tried.

Frank Ness Daub soaked a towel in cold water and held it to Joe's head. Joe came to with a rush, sputtering and then yelling "Ain'tchu got nothing better to do than mess around here? Are you aitchin' for a slap on the puss?"

Frank Ness laughed til he cried when he saw the effect of the statement and its reaction on Joe. After Frank Ness calmed down a bit, he said:

"You sure gave yourself away that time, Joe, You are always Johnny-on-the-spot when something goes wrong. You can shuck your coat quicker than any man in the Tincup fire department. But, if you are going to take over my job when we get organized, you will have to do that mentally."

"Say," said Joe, slowing up a bit. "You sound like Ernie. He said I should do the thinking and let the other guys do the work. What are you driving at? What do you mean? Take your job: What job? What the hell would you do if you had to work for a living? You ain't got no job. You gotta position."

Joe's razzing caused them both to laugh and then Frank Ness dribbled the last of the cream. He told of the decision made by Lot O. Sheckels to bring Purdy Tite into the business, the creation of a three-man board to govern the activities of the *Bladder*—Daub, Tite and Frank. When this information was unfolded, Joe butted in and said:

"That won't work. The Old Man won't stand for it. He won't take a back seat. If he ain't up in front he won't play. Sheckels is nuts if he thinks he can put that one over. That's screwey. You said Sheckels was smart: If you fell for that, you are slipping too."

"There you go," giggled Frank Ness. "Always belittling. Who asked you what you think? Who gives a damn anyway? Don't you remember what your Grampa always said? 'Get the facts.' I shouldn't tell you all this, but I'm a weak sister and I like you cause you are always on the up and up. So, I'll empty the bucket. Sheckels is going to leave the three of us in charge and skip town for a month. He figures, just like you, that there will be hell to pay at the *Bladder*. When he comes back he will be the referee. Now, hold your horses. This is the play. The *Bladder* will take over the *Bugle*, Reglar N. Smart, the *Bugle* boss will run the combined dumps. My Old Man will get kicked upstairs to a polite seat where he can make speeches to the Ladies Aid Societies."

"Hot dog." yelped Joe. "The wind from the *Bladder* will blow the *Bugle*."

(*To be Continued*)

125th Anniversary

To commemorate the 125th anniversary of its continuous printing service (since 1818) in the Pittsburgh district, William G. Johnston Co. has published a de luxe brochure. Outside dimensions are 10¼ in. by 14 in. Printing was done by offset-lith process, in black, magenta, blue and yellow inks.

Besides a considerable amount of historical information, the company lists the services afforded by it as follows: Letterpress and offset-lith and steel and copperplate printing, publications, court house and election supplies, blank book and looseleaf systems and school equipment and supplies.

An interesting spread is that composed of miniature reproductions of printing jobs dating from 1840 up through the '80s.

The executive personnel is shown in a double spread. Included are President and General Manager Robert H. Caffee, Plant Superintendent H. Milton Fritz, Composing Room Foreman Albert Kolb, Pressroom Foreman Carl Vogel, Bindery Foreman William Auth and Bookbinders Foreman William Hoffman.

The overall effect of the brochure is impressive and reflects the importance of the William G. Johnston Co. in the printing life of Pittsburgh and vicinity.

An interesting sidelight on the commemoration of the 125th anniversary of the company, service pins were awarded to 48 employees out of a total personnel of 88, the pins being presented to those who have been with the company for a period of 10 years or more. Diamond pins were awarded to two employees who have been with the company for over 50 years. The pin awards were made at a dinner given on September 12, 1943, to employees and their families.

"At the present time, 92% of the company's work is being done for government agencies and essential war businesses," stated President R. H. Caffee. "Manpower and other problems would permit very little additional activity, but radio, newspaper and direct mail advertising are now being conducted with an eye toward the post-war period."

The company currently is sponsoring a radio program designed to continue the prestige of its 125 years' service and to further extend its influence. The program consists of a 15 min. news broadcast on Sunday afternoons over Station WCAE, Pittsburgh.

Newsprint Made Partially from Waste Newspapers Operates Normally in Presses

DURING the afternoon of November 29, the Chicago *Tribune* held a demonstration press run before *Tribune* executives and 52 invited guests. These people were interested in seeing how newsprint made partially from waste newspapers could help solve the problems growing out of government restrictions on newsprint.

The following description of the test run was printed in the December issue of *The Trib*, the *Tribune's* monthly house publication:

"When they all had gathered around Press No. 16, specially plated up to print 4-page papers, it was set rolling by Harold Schmiedrich, foreman. Press crew which worked on the job included Cy Smith, Roy Freeman, Warren Sheckler, Harry Reid Jr., Frank Boyd, Frank D'Ambrosio.

"Following the run, visitors were given for comparison six identical sample copies of newspapers printed on different types of paper—paper used regularly by the *Tribune*, paper made of all new pulp, paper with 10% of non-de-inked wastepaper, paper with 20% non-de-inked wastepaper, paper with 23% de-inked wastepaper, and paper containing 45% de-inked wastepaper.

"After scanning the samples, representatives of the newspapers, paper and ink experts, and the WPB officials could find but slight difference in texture, general appearance, and printing clarity of the six samples. The newsprint containing 45% de-inked wastepaper provided clear and readable pages which, the experts agreed, could solve the newsprint problem if used generally throughout the country.

"In conducting their newsprint research, the *Tribune* and the New York *News* have had the co-operation of the New York state college of forestry at Syracuse university, and the Ontario Paper Company of Thorold, Ontario.

"The de-inked wastepaper experiments have proved that a large saving in wood pulp could be made, according to John W. Park, *Tribune* production manager. There are many methods of de-inking, he said, most of which provide for dislodging the ink particles from the salvage paper and holding them in suspension until they are washed away. The de-inked pulp is then pumped into the paper mill, where it is mixed with fresh ground wood and sulphite and sent to the paper machine.

"The process for the un-de-inked wastepaper is simpler. Smaller quantities of the wastepaper can be mixed with fresh pulp right at the paper machine."

Mechanical and Pcoduction Executives

You are invited to write the editor of *Printing Equipment Engineer* outlining some mechanical or production help which will be of interest to fellow executives. Our readers will appreciate your thoughtfulness.

Iowa Conference of newspaper mechanical executives to be held in May.

THE Iowa Daily Newspaper Mechanical Conference will be held at Hotel Fort Des Moines on Sunday and Monday, May 21 and 22. This will be the seventeenth meeting. For the 1944 meeting officers agreed that it would be beneficial to get together so plant executives may learn how other newspapers are handling wartime problems.

President Tod Bleuer has announced that the educational features of the conference will be held on Sunday, May 21, so that those executives who cannot be away from their plants on Monday will have the benefit.

Separate mechanical department group meetings will be held on Sunday, May 21, as follows:

Composing Room—Art Schmeigel, Muscatine (Ia.) *Journal*, chairman.

Engraving Department—Ken Waughtel, Kayenay Engraving & Colorplate Co., Mason City, Ia., chairman.

Stereotype Department—Earl Caldwell, Sioux Falls (S.D.) *Argus-Leader*, chairman.

Line-Casting Machinists—Carl Bloomberg, Des Moines (Ia.) *Register* and *Tribune*, chairman.

Changes Name

The Gerrard Company, Inc., 2915 West 47th Street, Chicago, Illinois is now known as Gerrard Steel Strapping Company, the better to identify the organization with the product it manufactures and distributes. This company manufac-

---

WPB News and Notes

Book
Commercial
Magazine
Newspaper
Orders Amended

Treanor New P&P Division Chief

THE resignation of Harry M. Bitner as Director of the Printing and Publishing Division of the War Production Board was announced on December 31 by Harold Boeschenstein, Acting Director of the WPB Forest Products Bureau.

Arthur R. Treanor, who has been Deputy Director of the Division for two months, succeeds Mr. Bitner.

Mr. Treanor is vice president, editorial counsel and chairman of the labor committee of the Booth Newspaper, Inc., of Michigan, and has held positions with the Associated Press. He is a member of the American Society of Newspaper Editors. His home is in Saginaw, Mich.

In accepting Mr. Bitner's resignation, Mr. Boeschenstein said that while he did not like to lose such an experienced and valued executive, he was happy that a man of Mr. Treanor's ability is available to carry on the work of the Printing and Publishing Division.

"Both the War Production Board and the publishing industries are grateful to Mr. Bitner for the work he has done in directing the work of the Printing and Publishing Division in the past nine months, and we appreciate the sacrifices he has made."

Norman is New Magazine Chief

ARTHUR R. TREANOR, Director of the Printing and Publishing Division of WPB, announced on December 31 the appointment of Allen E. Norman as Chief of the Magazine & Periodical Section, to succeed Walter J. Risley, Jr., who resigned effective December 31, to return to the Curtis Publishing Company in Philadelphia.

Mr. Norman, who has served as a Consultant in the Magazine & Periodical Section for the past five months, is Secretary of Fawcett Publications, Inc., New York, N. Y.

Mr. Treanor, in accepting Mr. Risley's resignation, expressed the regret of the War Production Board in losing the experienced aid of Mr. Risley, who has been chief of the Magazine & Periodical Section since December 8, 1941, the day following Pearl Harbor.

Wood Pulp Allocation on Quarterly Basis

ISSUANCE of amended General Preference Order M-93 to place the allocation of wood pulp on a quarterly basis beginning January 1, 1944, was announced by David Graham, administrator of the order and chief of the Office of Pulp Allocation, War Production Board.

Heretofore, WPB has allocated wood pulp on a monthly basis. The changeover to quarterly allocation coincides with a revision of the reports received from the paper industry to include an analysis of the business done by each manufacturer in certain broad classifications of end uses and end users. This analysis is expected to provide the basis of a program determination for pulp and paper for the first quarter of 1944.

Aluminum Ink Available In Small Quantities If In Stock

THE War Production Board on December 24 relaxed restrictions on aluminum paint, with the issuance of Supplementary Order M-1-g, as amended. The amended order sets up seven permitted uses of aluminum paint for the purchase of which no approval is needed. Manufacturers of aluminum paint will be given quarterly rather than monthly allocations, hereafter.

The amended order forbids the sale of aluminum pigment in amounts of more than two pounds, and of aluminum paint and ink in amounts in excess of one gallon, to anyone who cannot give a rating of AA-5 or higher. This will permit retailers to dispose of their present stocks, if any, in small quantities, to printing shops which are allowed to use it in printing and lithography and to individuals whose use of the material is not restricted; but will prevent retailers from replenishing such stocks except against sales for uses carrying an AA-5.

Sullivan Resigns— Hanson Succeeds

THE resignation of Matthew G. Sullivan as Assistant Director of the Printing and Publishing Division, War Production Board, and also as Chief of the Newspaper Section and administrator of the newsprint limitation order, was announced on December 22.

Succeeding Mr. Sullivan as administrator of the newsprint limitation order and as Chief of the Newspaper Section will be Carroll Hanson, formerly Senior Auditor of the Audit Bureau of Circulations. Mr. Hanson has been associated with Mr. Sullivan in processing newspaper appeals during the past year.

Wakeman on Mission

ARTHUR G. WAKEMAN, Assistant Director of the War Production Board's Forest Products Bureau, and formerly Director of the Pulp and Paper Division, has left Washington on a special official mission to England for the Forest Products Bureau.

His assignment includes conferring with British and other government and industrial officials on problems involving pulp, paper and paperboard products. Special attention will be given to international problems, and the coordination of the activities of the allied countries.

Mr. Wakeman expects to be abroad about six weeks.

General Preference Order M-43 Amended

THE War Production Board issued General Preference (Tin) Order M-43 as amended on November 3. The restrictions on the tin content of solders have been relaxed where it has been found that higher tin content is necessary. Under the amended order

Being Steadfast

For many months Linotype has been urging publishers and printers to take every precaution to preserve their machinery, as a wartime measure.

The good machinist knows that machines must be kept clean, properly lubricated and always in proper adjustment.

Like men, the true value of mechanical equipment of any sort is found in the ability to perform unfalteringly and well. So, be watchful–not occasionally, but steadfastly.

Set in Caledonia Bold and Garamond Bold No. 3 Italic

ANPA Mechanical Conference for 1944 — New Mechanical Committee Members

IT has been announced by the Mechanical Committee of the American Newspaper Publishers Association that the 1944 Mechanical Conference is definitely scheduled to be held at Hotel Statler, Cleveland, on Monday, Tuesday and Wednesday, June 12, 13 and 14.

Coincidental with the Mechanical Committee's information about the convention, the appointment of four new members to the Mechanical Committee were also made. ANPA President Linwood I. Noyes has made the following new appointments:

John L. Blake, Vice President, Scripps-Howard Supply Co., New York, N. Y.

T. A. Corcoran, Purchasing Agent, Louisville (Ky.) *Courier-Journal* and *Times*.

Worth C. Coutney, General Manager, Toledo (O.) *Blade*.

Edwin H. Evers, Mechanical Superintendent, St. Louis (Mo.) *Globe-Democrat*.

These four executives succeed Walter Ogden, Pressroom Superintendent, the Cleveland *Press*; Russell B. Miller, Mechanical Superintendent, Bloomington (Ill.) *Pantagraph*; Elmer Aslinger, Production Manager, Greensboro (N.C.) *News*, and Lester Yeager, Production Manager, Indianapolis (Ind.) *Star*.

Former committee members reappointed by President Noyes for the 1944 term are:

Committee Chairman—Arthur H. Burns, Mechanical Superintendent, New York *Herald Tribune*.

John A. Burke, Production Manager, Gannett Newspapers, Rochester, N. Y.

L. J. Griner, Mechanical Superintendent, Youngstown (O.) *Vindicator*.

Maurice A. Hagan, Engraving Superintendent, Philadelphia *Inquirer*.

John W. Park, Production Manager, Chicago *Tribune*.

C. H. Ruth, Mechanical Superintendent, Washington (D.C.) *Star*.

J. J. Shea, General Mechanical Superintendent, Hearst Newspapers, New York, N. Y.

specific provisions permit higher tin content for certain solders, in some cases above 21%. Careful survey has shown that the higher tin content solders permitted will actually result in a saving of tin.

Of principal interest to the printing industry are the relaxing of solders for specific uses, some of which are as follows:

For maintenance and repair of electric motors and generators—not more than 40% tin by weight.

For fabrication or repair of galvanized sheet metal air, heat and refrigeration ducts, gutters, downspouts, leaders and roofing—not more than 30% tin by weight.

For the manufacture of electrical fuses —not more than 40% tin by weight.

For repair and maintenance of automotive radiators—not more than 30% tin by weight, but only in the form of solid wire or cored wire solder.

For wiping lead sheathed cable joints or lead pipe joints—not more than 32.5% tin by weight.

Minor Changes in Essential Activities

DECISIONS of the Committee on Essential Activities of the War Manpower Commission, announced December 2, include several minor changes to the List of Essential Activities. The following occupational titles in the book-binding industry have been added to Group No. 29, "Communication Services": multiple-folding machine operator; flat sheet cutter; multiple-knife book trimmer; stock cutter, case binding materials, all around; backing-machine operator; headbander and liner machine operator; casing-in machine operator; case - making - machine operator, and book-binder, all around.

The committee also called attention of regional manpower directors to the fact that the occupational classification of an individual with respect to being engaged in a critical occupation depends upon the performance of the functions prescribed for the occupation in question in an essential activity. As an example, it pointed out that since no marketing or distributing activities have been included in the List of Essential Activities, an individual employed in marketing or distributing activities is not engaged in a critical occupation.

Commercial Printing Order L-241 Amended

ON December 31, 1943, WPB issued its Amended Commercial Printing Order L-241, effective January 1, 1943. The order effectuates four purposes: (1) It limits the amount of paper which a printer may use for commercial printing; this amount is called his "consumption quota," and is based upon the amount of paper which he used in 1941. (2) It limits the amount of paper he may accept, based upon the tonnage of paper he has in inventory. (3) It limits the basis weight of paper which may be used in printing certain items, and (4) It limits the amount of paper which a person may cause to be consumed in printing certain items.

Sliding Scale

The cut in paper quotas for the commercial printing industry have been worked out on a sliding scale. Commercial printers who used less than 10 T. per quarter in 1941 in non-governmental printing are exempt from the order provided they do not use more than 10 T. per quarter in 1944.

Printers who used between 10 and 13⅓ T. per quarter in 1941 are restricted to 10 T. per quarter in 1944.

All commercial printers who used more than 13⅓ T. per quarter in 1941 must reduce consumption by 25%, which represents an additional cut of 10% over the 15% previously in effect.

Limits on Amount of Paper Which May Be Used

In figuring out his quota for any calendar quarter a printer may choose between two different methods, depending on the needs of his particular plant, as follows:

First Method.—(i) Add up the total pounds of paper used in 1941. (ii) Subtract the pounds of paper used in 1941 for the items covered by other orders as listed in paragraph j of the order. (These papers are those covered by other L Orders applicable to newspapers, magazines, books, greeting and illustrated postcards, displays, wallpaper, boxes, and converted products in Order M-241-a.) (iii) Subtract the pounds of paper used in 1941 for the unrestricted items in paragraph (k). (These items are printing done for government, state, county or municipality, and certain printing for branches of the armed services if ordered by certain designated officials.) (iv) Take 18¾% of the difference. (v) This is the printer's quota for the calendar quarter.

Second Method.—(i) Add up the total pounds of paper used during the same calendar quarter of 1941. (ii) Subtract the pounds of paper used during that quarter of 1941 for the items covered by other orders such as for newspapers, magazines, books, greeting and illustrated postcards, displays, wallpaper, boxes, and converted products. (iii) Subtract the pounds of paper used during that quarter of 1941 for the unrestricted items, such as printing done for government, state, county, or municipality, and certain printing for branches of the armed services if ordered by certain designated officials. (iv) Take 75% of the difference. (v) This is the printer's quota for the calendar quarter.

Yearly Limit

Even though quotas operate on a quarterly basis, there is a yearly limit on a printer's use of paper. During the year

(*Continued on Page 32*)

Printing Patents . . .

Covering patents issued November 23, November 30, December 7, and December 14.

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,336,645. SPACING MECHANISM for a power driven paper cutter whereby the cutting positions for a given series of different cuts may be defined for easy repetition of the same series of different cuts. Manual actuation of the spacing mechanism lockingly clears the stops when a cut is made to permit the operator to operate the back gauge feed to the next desired position of cut. By using upper and lower stops, cuts that are close together and, in fact, narrower than the width of a stop or stop lip may be made. Thus trim cuts as well as main cuts may be set up. Invented by Mortimer Sendor, New York, N. Y. Unassigned. Application December 11, 1941. 9 claims.

2,336,856. SPIRAL BINDING of the flexible plastic type for a book with aligned perforations along an edge through which the convoluted binding passes. Novelty is that each of the terminal ends of the binding passes through an end perforation a second time and is then looped or wrapped around the last full convolution, thus preventing the binding from working its way out of the perforations. Invented by Albert Freundlich, New York, N. Y. Assigned to Spiral Binding Co., Inc., New York, N. Y. Application February 17, 1943. 2 claims.

Composing Room Equipment:

2,336,489. PHOTOGRAPHIC TYPE consisting of translucent blocks adapted to be locked in a frame for producing positive or negative prints by the blueprint method or similar procedure, and possibly also adaptable for preparing copy material for offset plate making. The negative of a symbol, letter, etc. is on the top face of the single block. Each block is made from four adjacent layers of identical size pieces shifted relative to each other to produce projecting flanges and grooves on edges of the block, or the blocks may be formed of solid material with edge flanges and grooves cut out. These grooves and flanges enable the blocks to be locked together in any desired composition and in a compact body. Invented by Fred Litty, Laurelton, Long Island, N. Y. Unassigned. Application July 27, 1942. 5 claims.

Feeding, Folding, Delivery:

2,335,078. SHEET FIBER BOARD FEEDING APPARATUS in which mechanism is provided for moving a sheet support from a loading position to engagement by an elevator which raises the support to engagement by a delivery mechanism which guides the support laterally away from the elevator. The elevator may be driven at different speeds so that when the last sheet has been removed from the support, the empty support may be quickly moved past the position of the sheet removal mechanism while simultaneously another support is raised to sheet removal position. Invented by Howard Osborn, Stapleton, Bristol, England. Assigned to The Thrissel Engineering Company Limited, Bristol, England. Application November 26, 1941. 11 claims.

2,335,431. SHEET COLLECTING AND FOLDING MECHANISM for printing presses providing means for drawing tail ends of sheets carried around collecting cylinders forwardly away from their adjacent knife slots before sheets reach the cutting line between cylinders. This is accomplished by transversely deforming the sheets to shorten their circumferential length by means of a sheet deforming roll having a slot that coacts with tucking blades causing sheets to be transversely deformed as they pass between roll and cylinder. Mechanism includes two rotary cylinders, coacting knives and slots for cutting sheets from a traveling web, devices for collecting the sheets, and folding jaws, in addition to the tucking blades and deforming roll. Web feed rolls are driven at same surface speed as the cylinders. Invented by Joseph E. Meyer, Westerly, R. I. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application October 16, 1942. 12 claims.

2,335,970. PAPER SHEET FOLDING MECHANISM in association with the press rolls of a "Brannon" folder, whereby the pressure applied to the rolls will be limited to the short interval required to form a definite fold in the sheet or quire. By immediately reducing or releasing the pressure, the folded sheet or quire is fed on through the rolls without being wrinkled. One press roll is slightly movable towards or away from the other press roll. A mechanism including a suitable arm and cam positions the movable roll with respect to the other roll and this movement is controlled and synchronized to adjust resulting pressure exerted by the rolls. Invented by Gerald W. Schmidt, Camas, Wash. Assigned to Crown Zellerbach Corporation, San Francisco, Calif. Application November 30, 1940. 2 claims.

2,336,161. CORE CAP for connecting the core of paper or other web material with a driving mechanism to effect winding or unwinding and to protect ends of paper tube cores against wear and strain encountered during such operations. It provides longitudinal spaced ribs disposed around periphery of the inner wall of the cap which function to distribute the stresses, provide substantially tighter fit between the cap and the paper tube and markedly increase the resistance to relative movements between the cap and the tube. Invented by Joseph E. A. Blanchet, Mystic, Conn. Assigned to Sonoco Products Company, Mystic, Conn. Application November 25, 1941. 2 claims.

Miscellaneous:

2,335,333. PROCESS OF COATING, SIZING AND WATERPROOFING paper, cardboard, textiles, this process said to produce an excellent decalcomania having marked advantages over the transfer sheets and decalcomania of the present art (the design being sealed in and protected against scratching). The flat sheet of fibrous material has a base coating of polymerized vinyl acetate which is printed upon. A finishing coat of cellulose acetate is added to base coat and printing. The sheet, base coating, printing and finishing coating are bonded to form a single, integral, unitary unlaminated and inseparable structure. The ink used for printing has a formula similar to that of base coat. Invented by Marcellus E. Wysong, New York, N. Y. Assigned by mesne assignments to Wysong Plastic Coating Corporation, Springfield, Mass. Application July 14, 1939. 2 claims.

Plate Making:

2,334,787. MACHINE FOR FINISHING PRINTING PLATES wherein the work holding or engaging mechanism is so constructed that should the cutter lift the work, the work will not be moved into the path of the cutter. It includes a rotating cylindrical cutter and a table for moving a flat piece of work toward the cutter. The

RECORD FOR '43 and a RESOLUTION FOR '44

DURING the difficult year of 1943, there has been no let-down in the quality or care used in producing Zomo Electric Zinc and A-Z Alloy.

These metals continue to be made by the electric induction process for uniformity. The same basic zinc and formulae have been maintained . . . the carefully selected materials for producing the improved Machine Cut Finish have fortunately continued to be available . . . and Backote has actually been improved.

Furthermore, the makers of Zomo Electric Zinc and A-Z Alloy resolve to continue their policy of research for still further improvements in order to bring you the most reliable metals for every engraving need.

A good resolution for 1944 is to resolve to order Zomo Electric Zinc and A-Z Alloy from your metal supplier.

ZOMO ELECTRIC ZINC ◆ A-Z ELECTRIC ALLOY

member which engages the top of work piece is a spring actuated lever arm pivotally mounted for swinging movement away from and toward the work piece. An adjustable stop is positioned near the lever arm to stop movement of work piece, should it be lifted by the cutter when an extra heavy cut is being taken. Invented by Leonard G. Olander, Minneapolis, Minn. Assigned to The Monomelt Company, Inc., Minneapolis, Minn. Application November 6, 1939. 2 claims.

2,335,021. FILM PRINTING SCREEN OF EXTRA FINENESS which is prepared as follows: a mixture of three parts of an aqueous solution of 10 per cent strength of polyvinyl alcohol and one part of a solution of 14 per cent strength of ammonium bichromate is applied in the form of a thin layer to a silk gauze stretched in the usual manner on a frame; the layer is dried in the dark, exposed to light through a negative which has been superposed, washed with hot water and dried. The layer is then coated on both sides with a solution of two parts of oxalic acid in ninety-eight parts of an aqueous solution of 40 per cent strength of formaldehyde; after drying it is heated for ten minutes to 120° C. or steamed for ten minutes in a boiler at a pressure of 1.5 atmospheres. The layer is then neutralized with a strongly dilute solution of sodium carbonate, washed, and dried. Invented by Franz Nestelberger, Frankfort-on-the-Main-Hochst, Germany. Vested in the Alien Property Custodian. Application April 16, 1940. 3 claims.

2,335,759. CAMERA FOR MULTI-COLOR WORK for use in exposing photographic plates to be used in production of printing plates. The camera has a removable magazine and two compartments, one for unexposed and the other for exposed plates, which plates may be moved from one compartment to the other. A filter carrier is associated with camera lens and carries an endless series of color filters which are moved in timed relation with the plate shifting mechanism. In front of each plate in exposure position, a series of small color filters is mounted, respectively corresponding in color to the filters in carrier. Invented by Vernon L. Howard, Indianapolis, Ind. Unassigned. Application August 22, 1939. 10 claims.

2,336,046. MECHANISM FOR FINISHING STEREOTYPE PRINTING PLATES; also for matching stereotype plates for double-page printing where side-by-side plates carry a unitary design. A semi-cylindrical saddle for supporting the plate is provided, the saddle having supports for straight edges of plate to positively position it angularly and engage the arcuate cast end to position it axially of saddle. Two sets of trimming knives are mounted near one end of saddle, one set effecting certain cuts and the other set the remaining cuts. A differential screw feed effects exact and minute axial feed of the saddle with plate thereon relative to trimming knives. On opposite side of trimming knives is an auxiliary stationary saddle for supporting straight edges of a companion plate previously finished. Companion plate is free for axial movement upon its saddle to match the design at two arcuate edges. Invented by Nils Olsen Temte, Chicago, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application June 1, 1940. 11 claims.

2,336,560. PREPARATION OF PHOTOGRAPHIC PRINTS whereby they can be obtained even if the printing layer requires a different light from that required for the printing prototype. Object is achieved by placing between the printing prototype and the printing layer a light responsive device which, under influence of colored light transmitted by transparent areas of prototype and more or less absorbed by opaque areas of prototype, causes light sensitive printing layer to be influenced accordingly by light of a different spectral composition. A fluorescent screen responsive to the colored light and a photo-electric device are used. Invented by Walter Michaelis, Brussels-Forest, Belgium. Assigned by mesne assignments to Chromogen, Incorporated, a corporation of Nevada. Application July 15, 1939. 14 claims.

2,336,590. METHOD OF PREPARING COPY FOR REPRODUCTION and of preparing negatives, positives and printing plates by the use of new inks and masks in combination with Ben Day and similar machines employing transfer method. The transfer artist may see all of the design reproduced on the plate or other medium positioned beneath screen as he works. A transparent colorless ink is used. A transparent screen has on its raised portions the transparent colorless ink, whereby ink may be applied to the plate or other medium in considerably less time than under conventional process. The detail transferred from screen to transparent sheet is then rendered photographically opaque. Invented by Albert R. Bourges, New York, N. Y. Unassigned. Application December 14, 1940. 9 claims.

Printing Inks and Related Chemicals:

2,334,812. PREPARATION OF ORGANIC PIGMENTS such as phthalocyanines having improved tinctorial strength and brilliance. They are used in printing ink emulsions for textiles, varnishes, etc. The color compound is precipitated from acid solution by drowning in aqueous solutions in a state of turbulent flow, whereby the time of dilution of the acid solution may be reduced to a minimum and crystal growth prevented or carefully controlled. An example is: N,N.-diethyl-2,2.-dipyrazolanthronyl is dissolved in sulfuric acid. The charge is divided into two parts and each part is drowned separately, one being introduced into several small streams and the other introduced into the center of a main stream. Invented by Stanley R. Detrick and Carl R. Brandt, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application February 23, 1940. 15 claims.

2,334,891. VAT DYESTUFFS OF ANTHRAQUINONE SERIES suitable for printing such as on cotton or regenerated cellulose fabrics, giving gray to black shades that are fast to bleaching and water-spotting. Process comprises subjecting an aminodibenzanthrone to a caustic alkali fusion (including anhydrous sodium acetate as a flux) in the presence of an oxidizing agent, until conversion to the gray to black vat dye is completed. Product may be treated with glycerine, diethylene glycol, etc. before being used for printing. Invented by Alexander J. Wuertz, et al, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application August 9, 1940. 3 claims.

2,334,892. GRAY VAT DYESTUFFS OF ANTHRAQUINONE SERIES, having bleach and light fastness, and which may be applied to fiber by usual dyeing and printing process, including dyeing by pigment padding method. Invention relates especially to preparation of alkyl and aryl ethers of pyridazino derivatives of diphthaloyl acridones wherein alkyl radical contains from one to six carbon atoms. Invented by Alexander J. Wuertz, et al, Wilmington, Del. Assigned to E. I. duPont de Nemours & Company, Wilmington, Del. Application May 21, 1941. 2 claims.

2,335,365. PRODUCTION OF CHROMIUM TRIOXIDE by reaction of sulfuric acid with calcium chromate. The crude chromium trioxide is purified by fusing it by heating to a temperature of 195°C. to 220°C., and filtering to cleanly separate it from the residual solid reaction products. It is useful in printing and lithographic inks, textile mordants, chromium plating, and elsewhere. Invented by Carleton N. Smith, Snyder, N. Y. Assigned to Carbide and Carbon Chemicals Corporation, New York, N. Y. Application August 14, 1941. 7 claims.

2,335,505. PRESS-STABLE PRINTING INK VEHICLE which is non-volatile at room temperature. Vehicle comprises at least 50% by weight of a water-soluble polyhydric alcohol, preferable glycerol—60% or more, compatible with the aqueous alkali silicate, the residue consisting essentially of a minor proportion of water and a major part of sodium silicate to give a body corresponding to that of ordinary printing ink vehicles. Barium lithol toner, carbon black, bone black, and pigments such as titanium dioxide are used. Invented by Albert E. Gessler, New York, N. Y. Assigned to Interchemical Corporation, New York, N. Y. Application November 21, 1939. 7 claims.

(*Continued on Page 28*)

EDES 1944 CALENDAR SERIES

The Edes Manufacturing Company has dedicated its 1944 calendar series to the purpose of honoring some of the individuals whose discoveries and inventions have contributed toward the perfection of the photo-engraving process.

To secure the most authentic information we turned to one of the world's foremost authorities on photomechanics, J. S. Mertle, Technical Director of the International Photo-Engravers' Union of North America and a Fellow of the Royal Photographic Society of Great Britain.

Working with Mr. Mertle, Griswold Tyng, a leading New England historical artist, created the calendar series. Historical material was secured from the comprehensive Mertle Collection, and on the back of each calendar is printed a brief story of each of the twelve great inventors in the field of photo-engraving and what they contributed.

If you would like to receive this historical series of calendars and you are not already on our mailing list—please let us know as soon as possible and we shall be glad to arrange to add your name to our list.

THE EDES MFG. CO.
Plymouth, Mass., U. S. A.

EDES ENGRAVING METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

Thousands have been put into use these past number of years. ***Only two*** have had to be replaced as defective.

This remarkable record is reason enough for using

Chromolox

(TWO - IN - ONE)

(This ONE Unit replaces TWO F3071 and F3072)

HEATING UNITS

If you are still one of the uninitiated, send for a circular. It contains specifications of Chromolox's sturdy construction: the reason for it's long life.

LINOTYPE PARTS COMPANY

Weatherly, Pa. — FACTORY—MAIN OFFICE

Kansas City, Mo. — 314 WEST 10th STREET

Precision TRADE ★ MARK Parts

CHICAGO — MINNEAPOLIS — DENVER

. . . it's wonderful how Big an improvement an ACE BELT can make in assembling!

CONFRONT THE NEW YEAR

with this one certainty

★ Many doubts hang over the advent of 1944. Will victory come early, or later? Will manpower be scarcer or more abundant? Will there be further restriction of newsprint, or opportunity to use it at will? Whatever the answers to these questions, it will be a good year to stick to Certified Mats . . . for rapidity of production . . . for clarity of picture and print . . . for quick service to plants everywhere.

For dependable stereotyping
Rely on Certified Mats

CERTIFIED DRY MAT CORPORATION

9 Rockefeller Plaza • • Dept. M, New York 20, N. Y.

Certified DRY MATS

Patents Report

(Continued from Page 26)

2,335,535. DISAZO PIGMENTS used in pigment printing on textiles and being fast to light, wash-resistant and insoluble in organic solvents. The colors produced vary, being browns, dull blues and violets of good cleanliness. The pigments comprise the coppered complexes of the couplings of beta-oxy naphthoic acid with tetrazotized primary aromatic diamines. Amines used may be dianisidine, dichlor benzidine, etc. Copper may be present as a simple salt or as a complex such as the copper ammonium complex. Invented by William B. Reynolds, Elmhurst, Long Island, N. Y. Assigned to Interchemical Corporation, New York, N. Y. Application June 12, 1940. 7 claims.

2,335,537. AZO PIGMENTS used in textile printing and similar to those in patent 2,335,535, above, ranging in color from deep violet to brown. Pigments comprise the coppered complexes of couplings of beta-oxy naphthoic acid with diazotized primary aromatic amines. Amines used may be paranitraniline, ortho anisidine, etc., the former producing a brilliant brown. Invented by William B. Reynolds, Elmhurst, Long Island, N. Y. Assigned to Interchemical Corporation, New York, N. Y. Application June 12, 1940. 6 claims.

2,335,538. AZO PIGMENTS used in textile printing, similar to those in patents 2,335,535 and 2,335,537, above. Pigments comprise the coppered complexes of the couplings of beta-oxy naphthoic acid with diazotized primary aromatic amines. Amines used may be 2,amino biphenyl, p-amino bibenzyl, etc. Invented by William B. Reynolds, Cincinnati, Onio. Assigned to Interchemical Corporation, New York, N. Y. Application November 14, 1942. 2 claims.

2,335,539. DISAZO PIGMENTS used in textile printing and similar to those in the three preceding patents. Pigments comprise the coppered complexes of the couplings of beta-oxy naphthoic acid with tetrazotized primary aromatic diamines. Amines used may be 3,3'-diphenyl benzidine, etc. Invented by William B. Reynolds, Cincinnati, Ohio. Assigned to Interchemical Corporation, New York, N. Y. Application November 14, 1942. 2 claims.

2,335,603. PREPARATION OF NEW NON-RESINOUS SUBSTANCES by heating anacardic material (shell liquid of the cashew nut) with one or more phenols under suitably controlled reaction conditions. The phenolic anacardic materials are useful as raw materials in manufacture of printing inks, lacquers, impregnating agents, and synthetic resins. The resinous derivatives may be also used in the manufacture of printing plates and other products. Invented by Emil E. Novotny, Oak Lane, and George Karl Vogelsang, Frankford, Pa. Assigned to Durite Plastics, Incorporated, Philadelphia, Pa. Application April 29, 1938. 2 claims.

2,335,882. PRINTING INK which can be dried or set by application of water and which is said to have greatly increased press stability, yet dries as well as other inks. A small percentage of alkylalamine incorporated into ink vehicle eliminates the difficulty of thinning of ink and-or precipitation of binder during humid weather. The ink comprises a pigment dispersed in a vehicle including a water-precipitable binder dissolved in a water-soluble hygroscopic solvent, and from 1% to 3% of an alkylolamine soluble in the solvent (mono-,di-, and triethanolamine). Lithol barium toner may be used. Invented by Adolf J. Pingarron, Hollis, N. Y. Assigned to Interchemical Corporation, New York, N. Y. Application March 19, 1942. 9 claims.

2,335,905. TEXTILE PRINTING PASTE containing sulfur color pigments and which will not corrode printing rollers of copper and brass. The improved paste is produced by incorporating in aqueous-organic emulsions containing water and a water-insoluble, film-forming material, an oxidized water-insoluble, non-substantive sulfur color pigment free from sulfur, sulfides and inorganic salts. The pigments are prepared by thionation of intermediates free from sulfonic and carboxylic acid groups. Barium hydroxide, bentonite clay, castor oil, esters and casein are used. Invented by Newell Meade Bigelow and John Elton Cole, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application September 20, 1940. 5 claims.

2,335,909. METHOD OF TREATING ROSIN to prevent crystallization, the rosin being useful in printing inks, core oils and varnishes. To the wood rosin is added 0.3% to 15% of a dammar gun, Batavia dammar, Singapore dammar, etc. The rosin may be stored in solid form or dissolved in solvents such as acetone, ethers and esters. Invented by Joseph N. Borglin, Wilmington, Del. Assigned to Hercules Powder Company, Wilmington, D el. Application December 19, 1942. 11 claims.

2,336,275. AZO DYE COMPOUND for coloration of organic derivatives of cellulose (such as cellulose acetate silk), silk and wool by dyeing, printing, stenciling, etc. In general, compound is prepared by diazotizing members selected from group consisting of an arylamine of the benzene series, an aminonaphthalene, an aminobenzothiazole, and an aminobenzoxazole, and coupling the diazonium compounds with a benzene or naphthalene nucleus such as diglycerylaniline diacetate. Invented by James G. McNally and Joseph B. Dickey, Rochester, N. Y. Assigned to Eastman Kodak Company, Rochester, N. Y. Application October 10, 1940. 4 claims.

2,336,317. AROMATIC ESTERS OF ALPHA-HYDROXYISOBUTYRIC ACID and hydroxy substituted derivatives thereof, used as solvents for lacquers, inks and various coating compositions, as plasticizers for synthetic resins, cellulose acetate, etc. Example: benzyl alpha-hydroxyisobutyrate produced by refluxing together alpha-hydroxyisobutyric acid and benzyl alcohol, diluting with carbon tetrachloride and finally fractionating the solution. Jack T. Thurston, Cos Cob, and John M. Grim, Stamford, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application November 6, 1940. 2 claims.

2,336,365. PROCESS OF PRINTING TEXTILES to obtain sharply registered color designs. The material is first coated with a permanent finish and size such as alkyl acrylate polymers, alkyl methacrylate polymers, alkali soluble alky celluloses, deacetylated chitin, rubber, polyvinyl alcohols and polyamides. The fabric is then printed upon with an alkaline type of printing paste and has the usual desirable "handle." Invented by Charles Franklin Miller, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application February 18, 1941. 8 claims.

2,336,484. PASTES FOR PRINTING DESIGNS ON TEXTILES, comprising a pigmented material dispersed in a water-containing resin-lacquer. An excess of neutral base is added. Formula I is: urea-formaldehyde resin in non-aqueous solution (50% total solids) (solvent xylol 75%—butyl alcohol 25%) 10%; alkyd resin solution (60% resin dissolved in xylol) 19%; phenol modified alkyd resin (60% total solids dissolved in xylol) 6%; pine oil 6%; ethylene glycol monolthyl ether 11%; water 42%; bentonite 3%; and benzedine yellow (dry) 3%. Invented by Gustave Klinkenstein, Maplewood, Conrad Frey, Nutley, and Edwin F. Tuttle, Jr., Woodridge, N. J. Assigned to Maas & Waldstein Company, Newark, N. J. Application April 16, 1941. 25 claims.

2,336,983. IMPROVED PRINTING INK of the type on which steam, after printing, forms a thin hard film of resin, yet which has a water tolerance, making it capable of resisting high press room humidities, a low tack compared to other inks, and which is said to be inexpensive to manufacture. The solvent is liquid polyglycols such as diethylene glycol and the binder is a resin comprising a rosin modified by an alpha beta unsaturated organic polybasic acid such as maleic and fumaric. The ink also contains from ¼% to 5% of weight of varnish of a higher fatty monohydric wax-like alcohol and a pigment. Invented by Donald Robert Erickson and Paul J. Thoma, Kalamazoo, Mich. Assigned to Michigan Research Lab-

(Continued on Page 30)

DID YOU

check your pay this month

Chances are you did. In these days of withholding taxes, income taxes, social security, etc., all of us are mighty careful to check each month's pay. And it is just as important in these times to check your type metal regularly — that means sending a sample to Imperial for analysis. And when you get the analysis report on your metal, read it carefully. This periodical analysis is an important feature of the Imperial PLUS PLAN that foresighted metal users depend upon. May we send you the details of the PLUS PLAN?

IMPERIAL TYPE METAL CO.

Serving The Graphic Arts Industry Only

PHILADELPHIA NEW YORK CHICAGO

Imperial

CAN YOU PUT US ON THE TRAIL OF A *Post-War Product?*

Prior to the war, our company manufactured a comprehensive line of just what our corporate name implies . . . precision equipment (metal bases, hooks and accessories, label die cutting machines, plate revising machines, etc.) for the printer.

For the past two years, however, our facilities have been devoted almost 100% to the manufacture of war equipment . . . which has necessitated expanding our manufacturing facilities.

Naturally, we will continue to produce "war goods" as long as these are needed. At the same time, however, it's up to us to do a little post-war planning to the end that we can keep our present personnel employed and likewise be in a position to provide jobs for those of our men who are in the service.

Consequently, we're interested . . . right now . . . in new products which we can manufacture and sell after the war is over. We prefer small items which would lend themselves readily to volume production and offer an opportunity for repeat sales in the printing field.

We are amply financed, and hence prepared to consider such items from either a cash purchase or royalty payment angle, manufacturing them in our plant and selling them ourselves via an already established sales organization.

If you have a new or partly developed product which you feel would fit into our line, please get in touch with us at once. Your communication will receive immediate and confidential consideration.

THE PRINTING MACHINERY COMPANY
436 Commercial Square • Cincinnati 2, Ohio

Patents Report

(Continued from Page 28)

oratories, Inc., Kalamazoo, Mich. Application June 2, 1941. 1 claim.

2,336,984. IMPROVED PRINTING INK similar to that described in patent 2,336,983, above. A small amount of high molecular weight polyglycols which are solid at normal room temperatures are added to increase water tolerance. One such polyglycol having a molecular weight of 1500 is sold under trade name of "Carbowax 1500." Invented by Donald Robert Erickson and Paul J. Thoma, Kalamazoo, Mich. Assigned to Michigan Research Laboratories, Inc., Kalamazoo, Mich. Application June 25, 1943. 1 claim.

Printing Presses and Equipment:

2,334,721. IMPROVED DRYING APPARATUS FOR A BLANKET of the driven endless type used in the rotary printing of textile or other goods. The drying unit is U-shaped and comprises parallel chambers positioned one above the other with a connecting chamber at one end. To speed up the drying operation in this chamber, the blanket moves over a plurality of paired adjacent rods which are twisted in opposite directions to cause turbulence with minimum air resistance by deflecting the air to the right and to the left as well as away from and toward the blanket. The air pressure is greater at the inlet than at the outlet, which difference in pressure tends to maintain the blanket out of engagement with the twisted rod. Invented by James H. A. Stanley McMordie, Arlington, and Manson E. Wood, Wakefield, Mass. Assigned to Dewey and Almy Chemical Company, North Cambridge, Mass. Application August 2, 1940. 15 claims.

2,334,745. METHOD OF ASSEMBLING LAYOUTS to be used in the preparation of printing cylinders or rolls for use in multi-color printing operations. The sets of positives may be assembled and registered individually instead of in groups. Subject matter on the printing cylinders may be readily duplicated or rearranged. The various separation positives of one color set are registered with a master layout including one of the separation negatives, and the positives themselves are provided with registering means which assures their accurate location in a master assembly. A layout can be prepared, disassembled or rearranged while omitting the preliminary steps of registering the positive with the negative. The positives can be exposed individually to the carbon tissues, and it is unnecessary to build up a layout plate with interposed glass strips in order to provide a flat surface for contact with the carbon tissue on the zinc plate. Invented by Harold Blaauboer, Jamaica, and Jack Cahn, New York, N. Y. Assigned to Alco-Gravure Division of Publication Corporation, New York, N. Y. Application October 5, 1940. 8 claims.

2,334,820. MULTI-COLOR PRINTING PRESS which uses resilient printing plates, preferably of rubber or rubber composition, and metal form inking rollers. The form inking rollers associated with the printing rolls are provided with rigid metal surfaces for transferring the ink to the resilient printing plates. The inking rollers bear directly against the printing rolls and are positively driven by means of gears carried by the printing rolls and form inking rollers. Since the form inking rollers are gear-driven from the printing rolls, there can be no slippage between the contacting surfaces of the form inking rollers and printing rolls, or between the ink receiving surfaces of the printing indicia on the printing plates and the surfaces of the form inking rollers. Invented by John F. Hawley, Riverside, Ill. Unassigned. Application September 30, 1940. 2 claims.

2,334,821. PRINTING PRESS ATTACHMENT FOR EFFECTING REGISTRATION of multi-color printing plates. Each pair of positioning arms is swingable at fixed points outside the printing roll and ends of these arms are connected by a cross bar which is slotted longitudinally and has graduation marks distributed lengthwise. Pins may be secured in the slot at any desired locations for supporting a flexible rubber plate in registration with other plates supported by like pins on similar cross bars carried by other swinging arms pivoted outside of another printing roll. The mechanism facilitates applying adhesive backed flexible printing plates, each in proper angular and lengthwise registration with the other, to the printing rolls of the press. Invented by John F. Hawley, Riverside, Ill. Unassigned. Application March 26, 1942. 6 claims.

2,334,909. FABRIC COLOR PRINTING PRESS wherein necessity of stopping press while ink or color is replenished is obviated. The color holder can be readily refilled and a wiper extending the length of the holder prevents excess color from loader mixing with other colors in holder. Press comprises a pressure cylinder and a stencil between which fabric passes, a color holder with compartments extending through the stencil for feeding different colors, and a color loader comprising a series of ladles adjacent the holder, having color compartments to match those of the holder, and being removable for filling. Loader is pivotally mounted so that it can be tilted to pour the colors from the ladles into respective compartments of holder. An adjustable stop collar limits movements of loader so that ladles are in proper alignment with compartments of color holder. Wiper wipes under edge of each ladle spout to prevent dripping. Invented by George Darenberg and Donald Shea, Freeport, N. Y. Unassigned. Application February 4, 1942. 7 claims.

WILL
Rent or Buy
HACKER
PLATE
GAUGE
Models No. 8 or No. 9

We urgently need two for vital war work, and if you know of one or either model available telephone or wire immediately.

Phone Plymouth 1000

EDES MFG. CO.
PLYMOUTH, MASS.

2,335,010. MULTI-COLOR SHEET-FED ROTARY LITHOGRAPHIC PRINTING MACHINE in which cooperating printing cylinders are "tripped" or moved away from each other whenever a sheet is not properly printing. The plate and impression cylinders are journaled in movable bearings and they may be tripped away from the blanket cylinder which is journaled in a fixed bearing. Ink rollers may be tripped away from the plate cylinder, and then manually moved toward plate cylinder to ink the plate. Tripping may be automatic or manual and pressure can be adjusted to suit conditions in printing without stopping the machine. Automatic actuation of tripping operations may be controlled by the setting of a part thereof by a form of sheet registering mechanism such as disclosed in patent 2,231,914, reported in the March, 1941, Printing Equipment Engineer. Invented by William F. Huck, Richmond Hill, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application August 3, 1940. 16 claims.

2,335,461. STENCIL SCREEN OF SILK for ornamenting glassware and ceramic articles with ceramic colors, and which is equally adapted for decorating or lettering cloth fabrics and paper. Method consists in passing cloth through screen stencil by means of a squeegee without rubbing coloring material upon screen directly with squeegee. This comprises depositing film of color upon one surface of a movable band, and then transferring it to screen by bringing said surface in contact with the stencil membrane. Pressure is applied against side of band opposite screen to pass color through without contacting screen itself. Color feed band may be of canvas, leather, rubber, etc. capable of withstanding abrasion of the squeegee. Invented by John C. Smith, deceased, late of Beaver, Pa., by George H. Campbell and Mary Barbara Stevenson, executors, Beaver, Pa. Assigned to Solar Laboratories, Beaver, Pa. Application October 14, 1940. 3 claims.

2,335,782. TEXTILE PRINTING BLANKET WASHING APPARATUS. Wasning is effected at two stations, one close to the print cylinders, the other at the end of the outward run. By adhesion, as much color as possible is removed from blanket and then it is scrubbed with a wet counter-running brush. A sheet of hot water is maintained over the whole outward run of blanket until it reaches second washing station. By loosening soft color and forming it into clots rather than a film, the first rubber squeeze roll cleans the blanket thoroughly. Blanket then passes over a chisel jet of water which cuts off remaining surface film and it is then blot dried by a felt roller. Invented by James H. A. S. McMordie, Arlington, and Manson E. Wood, Wakefield, Mass. Assigned to Dewey and Almy Chemical Company, North Cambridge, Mass. Application July 26, 1941. 5 claims.

2,336,112. WEB TENSION EQUIPMENT for high speed printing presses. The pre-selected range of normal tension (which may be a relatively small range as compared with the total range of movement of the floating roller) may be changed by the pressman from some remote point such as a station in press room, which is normally at a level above the reel room in which web rolls are located. Provision is also made for preventing operation of such preselecting means from any point other than a designated station. For quick stops and slowdowns there are provided predetermined values of tension which are different from and are not affected by the value or setting of the normal running tension and which have maximum limits so that the braking effect of the straps or other tension members upon the web roll is automatically reduced or terminated when predetermined tension is developed in the web. Invented by Harold L. McCleery, Downers Grove, Ill. Assigned to Allan J. Cline, Chicago, Ill. Application July 22, 1940. 16 claims.

REPORTS - SEARCHES - PATENTS - ELECTRONICS - INVENTION - MANUFACTURING - MARKETING

For patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

Opens Branch Laboratory

Le Roy's International Research Laboratories has opened a branch laboratory at 1190 Third Ave., New York, N. Y. This expansion provides for increased production of plastic base photographic emulsions as well as for the final testing of different models of color cameras, electric engraving cameras and a new line of color sensitive and testing instruments on which the preliminary work was done at the New Jersey Laboratories.

Dr. Adrian Le Roy also announces the release of a complete, electronic-controlled photographic emulsion machine unit designed for war plants. This is called the Lectrographic emulsion unit.

Organizes Trade Sales Division

Effective January 1, 1944, the Trade Sales Division of Interchemical Corporation will become the official outlet for all consumer products developed by Interchemical, its divisions and subsidiaries, with home offices and factory at Paterson, New Jersey. Two years ago the Setfast Division of Aridye Corporation, an Interchemical subsidiary, was formed to provide an outlet for Aridye products, suitable for the retail market. The Trade Sales Division provides an outlet for all retail products developed.

BUY MORE BONDS

With us AMERICA'S FUTURE COMES FIRST!

Your Hammond Easy Kaster was engineered and built with lasting qualities. It will more than stand up until Victory.

Hammond EK8-P. Full page, automatic-locking, flat caster. Available also without melting pot.

Hammond Machinery Builders INC
KALAMAZOO • MICHIGAN

1604 DOUGLAS AVENUE

Eastern Branch 71 West 23rd St., New York 10, N. Y.

SQUEEZE SOCK . . and an Open Fountain

In these days of man-power shortages, many pressmen find it necessary to apply added squeeze and ink instead of careful makeready . . . This last minute rush to go to press costs you money and places undue strain on your pressroom equipment—the rhythmic vibration of speeding cylinders is destructive to assemblies, causing excessive wear on bearings that are difficult to replace.

Here's a timely suggestion: Install Tingue Printing Press Blankets and/or Draw Sheets. They help eliminate vibration and excess impression because their rubber-like resiliency "gives and takes", maintaining the same thickness after millions of impressions—the result—a more even impression that takes less ink to cover.

TINGUE, BROWN & CO.

114-120 East 23rd St. 1227 Wabash Ave. 723 East Washington Blvd.
NEW YORK 10, N.Y. CHICAGO 5, ILL. LOS ANGELES 21, CAL.
507 PETERS STREET S. W., ATLANTA, GEORGIA

WPB

(Continued from Page 24)

1944 a printer may not use for the types of printing covered by this order more than 75% of the paper which he used for such printing in 1941. As long as he keeps within his yearly limit, he may use one of the two methods described above in one quarter and the other method in another quarter. A printer is allowed to exceed his yearly limit only to the extent of the borrowing and carry-over permitted in paragraph (n). This paragraph (n) is printed below:

Borrowing-Carry-over

A printer may add, in figuring out his quota under either method, an extra 15% to his quota if he uses that much less during the next quarter. Also, if he uses less than he is allowed for one quarter, he may increase his use in later quarters by that amount.

Certifications

It is provided in Order L-241 Amended that no printer may fill an order for (1) magazines, (2) books, or (3) any of the items listed in Schedule II unless he receives, from the person who publishes or issues the printed matter, a certification in substantially the following form, signed manually, or as provided in Priorities Regulation 7 (Sec. 944.27) by an official duly authorized for such purpose:

> The undersigned purchaser certifies, subject to the penalties of Sec. 35 (A) of the U. S. Criminal Code, to the seller and to the War Production Board that he is familiar with (insert the relevant provision) (i) Order L-244 (magazines), (ii) Order L-245 (books), (iii) Schedule II to Order L-241 of the War Production Board and that all printing ordered for items regulated by that order (or schedule), as amended from time to time, will be in compliance therewith.

This is a one-time certification and need not accompany each individual order.

Limits on Amount of Paper Which Printer May Accept

No printer or other person may accept delivery for any quantity of paper if his total inventory of all kinds of paper for use in commercial printing is, or by virtue of such acceptance will become, greater than 60 consecutives days' supply. However, if the amount of a particular item is less than 30 days' supply he may accept delivery of not more than an additional 30 days' supply of that item, provided the amount purchased is required for his production within 30 days of acceptance even if acceptance of that delivery will increase his total inventory to more than 60 days' supply. The number of days' supply shall be computed at the average daily rate of allowable consumption for the current calendar quarter.

Certification to Paper Dealer or Mill

No printer may order paper unless he furnishes, or has previously furnished, to the paper dealer or mill, a certification in substantially the following form, signed manually or as provided in Priorities Regulation 7 (Sec. 944.27) by an official duly authorized for such purpose:

> The undersigned purchaser certifies, subject to the penalties of Sec. 35 (A) of the U. S. Criminal Code, to the seller and to the War Production Board that he is familiar with Order L-241 of the War Production Board, and that all purchases by him of items regulated by that order, as amended from time to time, will be in compliance therewith.

This is a one-time certification and need not accompany each individual order.

SCHEDULE I

(a) Limits on basis weights. No person may manufacture and no person may cause to be manufactured any of the items listed in this schedule in a basis weight, thickness, area or weight per unit greater than the maximum specified for such use.

(1) Art reproductions, without advertising—basis weight 25 x 38—120 lbs.

(2) Diaries, date books, desk calendar pads and advertising memo pads 9" x 6" or smaller—basis weight 17 x 22—16 lbs. Larger than 9" x 6" basis weight 17 x 22—20 lbs.

(3) Dodgers and handbills—basis weight 24 x 36—35 lbs.

(4) News letters and loose leaf services other than books (as defined in Order L-245)—basis weight 17 x 22—16 lbs. if printed on one side; basis weight 17 x 22—18 lbs. if printed on two sides.

(5) Accounting records, books and forms—basis weight 17 x 22—32 lbs.

(6) Corporate securities checks, domestic and foreign currency—basis weight 17 x 22—24 lbs.

(7) Notes, contracts, mortgages, wills, deeds and insurance policies—basis weight 17 x 22—20 lbs.

(8) Letterheads—basis weight 17 x 22—16 lbs.

(9) Card indexes and card records—basis weight 25½ x 30½—140 lbs.

(10) Time cards—caliper .014 inches.

(11) County record books—basis weight 17 x 22—36 lbs.

(12) Prospectuses for the sale of securities—basis weight 25 x 38—50 lbs.

(13) Legal briefs and records on appeal—basis weight 25 x 38—50 lbs.

(14) All other office, business, financial and legal forms, except blank books—basis weight 17 x 22—16 lbs.

(15) Road and street maps and guides for civilian use—basis weight 17 x 22—20 lbs.

(16) Telephone directories—body basis weight 24 x 36—28 lbs.; cover basis weight 22½ x 28½—110 lbs.

(b) Exceptions. The above restrictions do not apply to paper which has been manufactured before October 21, 1943.

(c) Exceptions to Order L-120. Schedules I, II and III to Order L-120 provide: "Paper may be manufactured in any basis weight or thickness permitted for a particular use by any subsequent order, provided the basis weight or thickness does not exceed the maximum specified by the War Production Board for such use, and provided all other provisions of this or such subsequent order are fully complied with." Pursuant to this provision the manufacture of paper in the basis weights specified in this list for art reproductions, corporate securities, checks, domestic and foreign currency, and telephone directory covers is hereby permitted. All other basis weights specified in this list may be manufactured only in the grades in which they are permitted under the relevant schedules of Order L-120.

SCHEDULE II

(a) Limits on the amount of paper which a person may cause to be consumed in printing certain items. During the year 1944, and each year after that, no person may cause to be consumed in the printing of items listed in this schedule more than 75 percent, by weight, of the paper which he caused to be consumed in the printing of those items in 1941. It is not necessary for the weight of each copy or edition to be reduced, as long as the total weight of paper consumed in the printing of all copies or editions is reduced by the required amount.

(1) Catalogs (including supplements) of 12 or more bound pages issued by a person who manufactures, distributes or offers for sale the products, commodities or services listed therein.

(2) Directories (except telephone directories) of 12 or more bound pages issued by a person whose primary business is not publishing.

(3) Shopping guides, free distribution newspapers, want ad publications and free distribution circulars in newspaper format which are not "newspapers" as defined in Order L-240.

(4) School and college annuals and year books.

(b) Certification. No person may order any of the items listed in this schedule to be printed unless he furnishes, or has previously furnished to the printer, a certification in substantially the following form, signed manually or as provided in Priorities Regulation 7 (§944.27) by an official duly authorized for such purpose:

> The undersigned purchaser certifies, subject to the penalties of section 35 (A) of the United States Criminal Code to the printer and to the War Production Board that he is familiar with Schedule II to Order L-241 of the War Production Board and that all printing ordered from you of items regulated by that schedule, as amended from time to time, will be in compliance therewith.

This is a one-time certification and need not accompany each individual order.

Book Limitation Order L-245 Amended

NEW restrictions on the use of print paper by book publishers in 1944 approximating a 23.1% average decrease under the 1942 base were announced and became effective on January 1 by Harry F. West, chief of the Book Publishing and Manufacturing Section of WPB. It is estimated that this requirement will save approximately 39,200 T. of printing paper under the book industry's consumption of 170,000 T. during the base year, 1942.

The sliding scale of curtailment was

"FLECTO"

GUMMED BACKING FELT

Recommended by Stereotypers everywhere. Coated with glue that will not slip or leave the matrix under heat. Tears easily. Made in gauges .025, .030 and .035—Sheets 18 in. by 24 in., and gauges .040, .045, and .050—Sheets 18 in. by 22 in. Cut into strips without charge.

"TRUE-MOLD"

CORK MOLDING BLANKETS

Better molding with "MATCHED" sets. Order 2 or 100—they will be matched in all their qualities. Each blanket has been scientifically tested and graded. We can furnish HARD & EXTRA HARD (Special) blankets that are matched in weight and density.

Free samples on request — Send for latest catalog on newspaper supplies

EASTERN NEWSPAPER SUPPLY

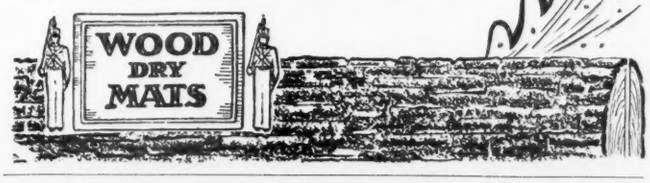
9603 NORTHERN BLVD., CORONA, N. Y.

RIGHT FROM THE WOOD

YEARS of experience have given Wood Flong a keen appreciation of the widely varying stereotyping requirements of many newspapers. Thus Wood's laboratory, production and service departments can give you, at short notice, mats and working suggestions of a special nature which will help to solve your problems.

There is no obligation for this service. Wood field representatives are always at your disposal.

WOOD FLONG CORPORATION
HOOSICK FALLS, NEW YORK
New York City Office: 551 Fifth Avenue



THE
CHALLENGE HI-SPEED QUOIN

Two do the work of four to eight ordinary Quoins . . . A Money Saver. One turn of the key locks this direct-expanding Quoin TIGHT! Self contained . . . can't fall apart. Exact register position shown by indicator on top. CHALLENGE HI-SPEED QUOINS are rust-proof plated to last for years.

Furnished in six standard sizes. Details and price on request. 471

THE CHALLENGE MACHINERY CO.
Main Office and Factory: GRAND HAVEN, MICH.
1893 50th ANNIVERSARY 1943
Eastern Sales Office: 50 Church St., NEW YORK

ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

There Is No Waste In This Product

More than ever, mechanical and production executives must watch their p's and q's with respect to waste of time and materials. Considering manpower and materials shortages, they are taking every precaution to stop waste—no matter how insignificant.

An efficient waste stopper, ***Booth's Zink Cut Cement.*** It comes to you in a collapsible tube—you use only as much as is needed each time. The rest of the Cement keeps indefinitely in the tube without any waste at all.

Fastens all kinds of cuts to wood or metal base.

Booth's Black Rubber Rolls

For line-composing machine keyboards are still going strong. Have you tried these fine rolls? Maximum resiliency and of the same diameter from end to end when applied properly to the roll shaft. $1.45 per pair; $7.75 per dozen.

Please place on your purchase orders for Booth products the CMP Reg. 5 certification with the symbol AA-2; MRO, which has been granted to the printing and publishing industry for the purchase of maintenance, repair and operating supplies.

THE E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

The vital importance of economy of time has been graphically demonstrated during the war. No. 3-A C&G Saw Trimmers are established time-savers in many plants. Multiple efficiency is gained when C&G Saw Trimmers are so located that wasteful walking time to and from the saw is eliminated.

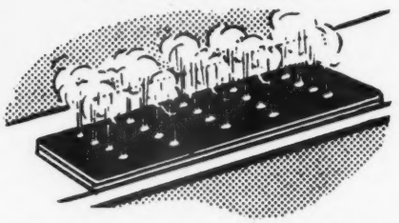
Additional C&G Saw Trimmers, convenient to every make-up bank, will convert walking time to productive time—with the resultant increased efficiency.

Whether you need replacement or additional saw trimmers, you should order now for the earliest delivery possible. Write for latest circular on the No. 3-A C&G Saw Trimmer.

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE 2, WISCONSIN

PERFORATED GUMMED PACKING FELT

Important where considerable shrinkage is employed



Manufactured under Patent No. 1,967,444

Is More Flexible • Forms with the Mat • Dries Faster • Sets Instantly

Send for a Trial Order Today—
Sheets or Cut Strips

American Publishers Supply
P. O. Box 924 **Lynn, Mass.**

devised because some publishers are not able to reduce their consumption of paper as economically as the larger publishers, Mr. West explained. Under the new method of computing quotas, small book publishers who used 20 T. of paper or less in 1942 may consume in 1944 the same amount used in 1942, without curtailment. Book publishers who consumed in 1942 more than 20 T., but not more than 100 T. of paper, may use, in 1944, 20 T. plus 85% of the difference between 20 T. and their actual consumption in 1942.

If, for example, a publisher used 80 T. of paper in 1942, he computes his 1944 consumption quota as follows: There is no curtailment on the first 20 T.; to this 20 T. he adds 85% of the remaining 60 T., which equals 51 T.; thus his consumption quota for 1944 will be 71 T. The 20 T. exemption does not apply to publishers who used more than 100 T. in 1942. They are limited, in 1944, to 75% of their total 1942 consumption, or 88 T., whichever is larger.

Under the graduated scale of curtailment, the full 25% cut will be borne by approximately 23% of the publishers in the country, whose consumption of paper accounts for 93% of the total paper used in the book publishing industry.

The amended order makes it clear that consumption quotas may not be bought and sold under any subterfuge, inasmuch as the transfer of quotas is prohibited except under the circumstances set forth in Priorities Regulation 7A. The use by one publisher, directly or indirectly, of a consumption quota provided by another publisher is a violation that is punishable by criminal prosecution.

Except where specific authorization is granted by the War Production Board, paper used in the production of a book may be charged only against the quota of the person who is the true publisher of that book, who owns the publication rights under copyright, and whose publishing imprint appears on the title page, spine and jacket of the book to the exclusion of any other imprint or colophon of any kind.

Specific authorization to debit the quota of a publisher whose imprint is not the only one on the book will be granted, Mr. West said, in every case where it can be demonstrated that the use of an additional imprint or a different imprint is not being resorted to for the purpose of evading the prohibition against the transfer of quotas.

"It is not the intention of the War Production Board," Mr. West said, "to tamper with regular trade practices or to prohibit the established procedure in the book publishing industry, whereby one publisher occasionally undertakes the promotion, distribution and sale of an edition or part of an edition of books published by another person."

The amended order provides that a publisher may not accept delivery of print paper if his inventory is, or will become, greater than one-fourth of his yearly consumption quota. The same restriction applies to the acceptance of paper by another person for a publisher's use. This limitation applies to a publisher's total inventory of all kinds of paper regardless of the quantity of any particular item that he may have on hand. The provision limits only the acquisition of paper by a publisher and does not require a publisher, who has more than one-fourth of his consumption quota in inventory, to dispose of that inventory.

Book publishers must now certify both to their printers and their paper suppliers that they are cognizant of the provisions of Order L-245 and intend to comply therewith. These are one-time certifications and need not accompany each individual order.

The term "book" is redefined to mean any collection of printed pages, bound by any method, irrespective of the number of pages involved, and includes school workbooks and juveniles.

Excluded from the definition, however, are: (1) Publications issued at periodic intervals of less than six months; (2) diaries, date books and similar publications whose primary function is to provide space for the entry of data rather than instructional material, reading matter or illustrations; (3) albums less than half of whose pages contain reading matters or illustration; (4) catalogues or advertising brochures issued by a person who manufactures, distributes, or offers for sale the products, commodities or services listed or illustrated therein; (5) directories issued by a person whose primary business is not book publishing; (6) paperbound pamphlets or booklets of less than 64 pages, except bound music folios, issued by a person whose primary business is not book publishing.

Newsprint Order L-240 Amended

NEWSPAPER Limitation Order L-240 as Amended was published by WPB on December 24, 1943. The purpose of the order is to limit (1) The tonnage of print paper which may be used by a publisher in printing a newspaper—this is called his "consumption quota." (2) It limits the tonnage of print paper which may be ordered or accepted by a newspaper publisher—this is called his "delivery quota." A publisher's consumption quota is on a quarterly basis and his delivery quota is on a monthly basis.

Exceptions

The restrictions on the consumption of print paper do not apply to special types of newspapers containing eight pages or less which is authorized to be admitted as second class mail matter pertaining to the publications of benevolent, fraternal, trades-union, professional, literary, his-

Get Dust
"ALL-OUT"
with a
TORNADO
PORTABLE ELECTRIC BLOWER

IN your all-out defense against dust danger and damage, use the TORNADO. Gets dust, dirt and lint *all out* of motors, linotypes, presses, folders. Makes motors and machines last longer. Also convertible for vacuum-cleaning of shelving, paper stock and type cases. Adaptable for spraying paint and insecticide. Keep your costs down — your profits up — by keeping your plant clean with a TORNADO.

Write for details and Free Trial Offer!

TAKE THE DUST OUT OF DUSTRY
BREUER'S BALL BEARING
TORNADO
PORTABLE ELECTRIC BLOWER

BREUER ELECTRIC MFG. CO.
5114 N. Ravenswood Ave., Chicago

DUPLEX PRESSES

Semi-Cylindrical • Unitubular
Tubular • High Speed Flat Bed
Flat Bed • Stereo Machinery

The Duplex Printing Press Co.
Battle Creek, Mich.

torical, and scientific organizations and societies, and to any newspaper which shall consume less than 25 T. of print paper in a calendar quarter, regardless of the tonnage of paper consumed previously.

The principal provisions with respect to consumption quotas and to delivery quotas are as follows:

Consumption Quota

(j) *Allowable consumption.* In the first quarter of 1944, and in each calendar quarter after that, no publisher may use or cause to be used, in the publication of a newspaper, print paper in excess of:

(1) His quarterly consumption quota, which shall be computed in accordance with the instructions set forth in paragraph (k), plus

(2) Any less-than-quota savings carried over from previous calendar quarters, as provided in paragraph (1), plus

(3) Ex-quota tonnage, if any, which may have been granted on appeal for consumption in that quarter.

(k) *Computation of consumption quota*— (1) *Base tonnages.* Ascertain separately, the tonnage of print paper comprising the net paid circulation of morning, evening, Sunday or other issues of the newspaper in the corresponding quarter of 1941. Add 3 per cent to each figure. (This 3 per cent is an arbitrary allowance to compensate for production waste and should be added whether the actual production waste in 1941 was greater or less than 3 per cent). These are the "base tonnages" for morning, evening, Sunday or other issues of the newspaper, which shall be adjusted in accordance with instructions 2, 3, and 4.

(2) *Circulation increase.* Ascertain separately, the percentage increase or decrease in net paid circulation of morning, evening, Sunday or other issues of the newspaper in the calendar year 1942 as compared with the calendar year 1941. (The average net paid circulation for each year shall be determined by adding together the average net paid circulation for each of the four quarters of the year and dividing by four.)

(3) *Tonnage equivalent of circulation increase.* Apply, separately, the respective percentages of circulation increase or decrease determined under instruction number 2 to the respective base tonnages determined under instruction number 1 for morning, evening, Sunday or other issues of the newspaper.

(4) *Adjustment of base tonnages.* Adjust the respective base tonnages determined under instruction number 1 by adding or subtracting the number of tons represented by the percentage circulation gain or loss determined under instruction number 3.

(5) *Total adjusted base tonnage.* Total the respective base tonnages for morning, evening, Sunday or other issues of the newspaper determined under instruction number 1. Total the respective adjusted base tonnages for morning, evening, Sunday or other issues of the newspaper determined under instruction number 4. The larger of these two totals is the publisher's "total adjusted base tonnage" from which the required reductions shall be applied.

(6) *Sliding scale of reductions.* Reduce the total adjusted base tonnage by the following sliding scale of percentage cuts:

(i) Deduct 4% of the amount over 25 tons but not over 125 tons.
(ii) Deduct 8% of the amount over 125 tons but not over 250 tons.
(iii) Deduct 12% of the amount over 250 tons but not over 500 tons.
(iv) Deduct 20% of the amount over 500 tons but not over 1000 tons.
(v) Deduct 24% of the amount over 1000 tons.

(7) *Consumption quota.* The balance remaining after subtraction of the above reductions from the total adjusted base tonnage determined under instruction number 5 is the publisher's consumption quota for the quarter.

(l) *Carry-over.* If a publisher uses less print paper than he is permitted to use in the fourth quarter of 1943, or in any calendar quarter after that, he may add this tonnage to his consumption quota in any succeeding quarter.

Delivery Quota

(n) *Computation of delivery quota.* In January, 1944, and in each calendar month after that, no publisher may order or accept delivery of print paper in excess of his monthly delivery quota, which shall be computed in accordance with the following instructions:

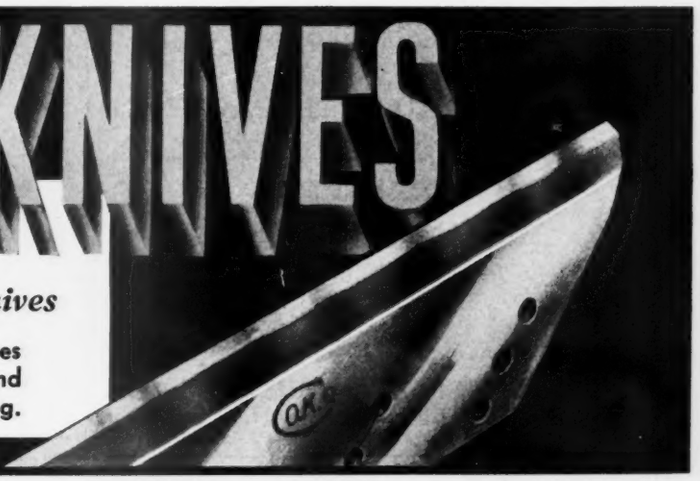
(1) *Monthly base.* To the publisher's consumption quota for the current calendar quarter add ex-quota paper, if any, which may have been granted on appeal for use in the current calendar quarter. Divide the sum by three.

OHIO KNIVES

OK BLACK ARROW *Trimmer Knives*

A special heat treatment of the steel assures you of extra long life between grinds and a tough edge for all kinds of cutting.

OHIO KNIFE CO. • CINCINNATI 23, OHIO



Inventory Ceiling

The amount obtained as explained in Monthly Base above shall be reduced accordingly if a publisher's inventory is, or by virtue of such order or acceptance will become greater than (1) 40 days' supply for publishers located in a list of 27 states comprising List A, most of which are in the northerly portion of the U. S., and (2) 65 days' supply for publishers in a list of 22 states comprising List B, which are located mostly in the southern and western sections of the U. S.

(3) *Computation of rate of consumption.* The number of days' supply shall be computed at the average daily rate of allowable consumption for the current calendar quarter. This shall be determined by dividing the publisher's allowable consumption for the quarter by the number of days on which his newspaper is published in that quarter.

(4) *Fractional carloads.* If a publisher's delivery quota for any month is less than one carload it may be increased to one full carload. If it is a whole number of carloads plus a fraction of another carload, the fraction may be added to his delivery quota for any succeeding month.

(p) *Certification.* On and after December 24, 1943, each order by a publisher for delivery of print paper shall contain substantially the following certification, signed manually or as provided in Priorities Regulation 7 (section 944.27) by an official duly authorized for such purpose.

> The undersigned purchaser certifies, subject to the penalties of section 35 (A) of the United States Criminal Code, to the seller and to the War Production Board, that, to the best of his knowledge and belief, the undersigned is authorized under applicable War Production Board regulations or orders to place this delivery order, and to receive the item(s) ordered for the purpose for which ordered.

No person may deliver print paper to a publisher except upon a delivery order which bears the above certification.

Magazine Print Paper Order L-244 Amended

MAGAZINE Print Paper Order L-244 as Amended December 30, 1943, became effective January 1, 1944. The order affects some 2500 publishers of magazines and periodicals, stated Walter J. Risley, Jr., Chief of WPB's Magazine Section of the Printing and Publishing Division. In 1942, stated Mr. Risley, the total magazine print paper consumption was about 950,000 tons; in 1944, it will be 712,500 tons, effecting a saving of 257,500 tons in 1944.

Publishers of magazines and periodicals in the United States, with certain exceptions, will be restricted in 1944 paper usage to 75% of their tonnage in 1942, which is the base period. Publishers, in the small-tonnage brackets, however, will not be restricted as much as the larger users.

The reduction of paper tonnage, amounting to 25% below 1942, was anticipated by the magazine publishers, Mr. Risley pointed out, and is necessary because of the acute shortage of pulpwood and wood pulp.

The basis upon which the newly amended order will be operated is as follows:

If a magazine uses 5 T. or less per quarter, no cut in quarterly paper consumption is required.

A 10% reduction is required if between 5 and 27.8 T. were used in the base period, but a minimum use of 5 T. is permitted.

The full 25% cut is required in magazines using more than 27.8 T., although they are permitted a minimum use of 25 T.

Adjustments permit publishers to borrow an additional 15% of their next quarter's paper quotas, provided they deduct that amount from their quotas in the next period. On the other hand, paper savings effected in one quarter may be used in subsequent quarters.

Certifications Required

Two one-time certifications—one to the printer and one to the paper dealer or mill—are required by the amended order to be furnished by the publisher. These are as follows:

No publisher may order magazines to be printed unless he furnishes, or has previously furnished to the printer a certification in substantially the following form by an official duly authorized for such purpose:

> The undersigned purchaser certifies, subject to the penalties of Sec. 35 (A) of the U. S. Criminal Code, to the printer and to the War Production Board that he is familiar with Order L-244 of the War Production Board and that all printing ordered by him of items regulated by that order, as amended from time to time, will be in compliance therewith.

The certification to the paper dealer or mill is as follows:

SYNTRON
REG. TRADE MARK
"VIBRATING"
PAPER JOGGERS
Speed up the job
Eliminate effort
Cut Labor costs
Made in 3 sizes
SYNTRON CO.
577 Lexington Homer City, Pa.

A.P.S. GUMMED PACKING
CORK BLANKETS
CREEPERS
POURING SHEETS
ROUTER BITS
TAILBOARDS
ALWAYS BEST AT
AMERICAN PUBLISHERS SUPPLY
17 Stewart Street Lynn, Mass.

CUSHMAN (OFFSET) MOTOR

A pioneer in the typesetting machine field, it has kept improving through the years.

Thirteen thousand are in use over the world.

MOTOR DIVISION
LINOTYPE PARTS COMPANY
Weatherly, Penna.

PREPRINT

To PREPRINT means to check and to correct plate and form faults and errors when it can be done most economically and efficiently.

It will cut down your makeready time, increase the impression output of your presses, and add to your profits. Write for circular.

VANDERCOOK
PROOF PRESSES · BLOCK LEVELLERS · HACKER GAUGES

VANDERCOOK & SONS, 900 N. Kilpatrick Ave., Chicago 51, Ill.

SAFETY·RELIABILITY·ECONOMY

CLINE
PRESS DRIVES
and
CONTROL
Reels, Tensions
and Pasters...

CLINE SYSTEM

CLINE ELEC. MFG. CO.
Chicago. 211 West Wacker Drive
New York. 220 East 42nd Street
San Francisco 1st Nat'l Bank Bldg.

$325 GET THE FACTS!
ON THE
NEW Rouse BAND SAW
H. B. ROUSE & COMPANY
2216 N. WAYNE AVE., CHICAGO, ILL.

100% AUTOMATIC SLUG SAWING
Odd-measure slugs sawed to any measure as ejected from line-casting machine. Fast — accurate — economical. Write for folder and prices.
MOHR LINO-SAW CO.
128 N. Union St. Chicago
MOHR SAW

Stop Offset Trouble!
Send today for our new bulletin, "10 Ways to Avoid Offset." 14 pages of valuable hints for the pressman — how to improve presswork save money — by stopping Offset trouble.
FREE
E. J. KELLY CO.
1807 N. Pitcher St. Kalamazoo, Mich.

SAVE YOUR MANPOWER
BUY NEW "BULLDOG" CLAMPS
Save Their Hands

New Model
J. A. Richards
The Saw-Maker
Kalamazoo
13F
Mich.

ANTI-
FANNING

MECHANICAL EQUIPMENT FOR SALE — Eight 72-channel split magazines; one 72 channel upper-split magazine; two 72 channel full magazines — all for Intertype. $600.00 for the lot, f. o. b. Cincinnati, Ohio, subject to prior sale. Address H. D. Rindsberg, c/o The Cincinnati Enquirer, 617 Vine St., Cincinnati 1, Ohio.

If that Equipment or Supply item is to be had PRINTING EQUIPMENT *Engineer* will help locate it if you have difficulty in finding where to get it.

FOR SALE —**30 in. x 40 in. Vallete litho darkroom camera complete with two copyboards, one operating on camera rails, other on separate structure; positive holder; acid-blast focusing glass; steel focusing tape; Douthitt diaphragm control coupled to 80 c.m. Zeiss Apo-Planar lens. Smaller copy board on rails is 35 in. x 35 in. and 2-motor control from darkroom regulates forward-backward and up-and-down movement. Larger board has face 8 feet x 5 feet, with steel reinforced supporting structure measuring 14 feet x 5 feet. This larger board is also fully automatic, vertical and lateral adjustments being controlled by push buttons within dark room. Lateral movement is 3 feet to either side of center line; vertical range is 1½ feet above or below center line. All electrical equipment is AC 60-cycle.**

Vacuum printing frame, size 82 in. x 55 in. equipped with pump driven by ½ horse power, 115/230 AC 60-cycle motor. Has electric ho ist arrangement for raising and lowering top half of frame as well as rotating entire frame to either vertical or horizontal positions.

Douthitt whirler 60 in. diameter, will take plate size 35 in. x 49 in. Motor operates on AC 60-cycle.

Photographs available of all this equipment.

CLEVELAND SHOPPING NEWS

5309 Hamilton Ave. Cleveland, Ohio

The undersigned purchaser certifies, subject to the penalties of Sec. 35 (A) of the U. S. Criminal Code, to the seller and to the War Production Board that he is familiar with Order L-244 of the War Production Board and that all purchases by him of items regulated by that order, as amended from time to time, will be in compliance therewith.

Delivery Restrictions

With respect to delivery restrictions, no publisher may accept delivery of any grade of paper if his inventory of that grade exceeds a two-months' supply, based on his average rate of use during the last six months of 1943, or if acceptance of the delivery will bring his inventory above this level.

If the total inventory of any grade exceeds a two-months' supply, but the inventory of a particular item is less than one-month's supply, the inventory of that item may be brought up to a two-months' supply.

Deliveries limited by the foregoing to a fraction of one carload may be increased to a full carload.

ANNUAL EDITORIAL INDEX

JANUARY 1943 TO DECEMBER 1943, INCLUSIVE

A

Absenteeism, 20, July.
Addison, Jos. B., Participate to Get Most Out of Mechanical Conferences, 28, Mar.
Advertiser's Postal District Directory, 27, Aug.
Advocates making 50% Engraving Zinc Do 100% job, by Elmer Hodgkinson, 22, Mar.
Annis, Horace, Fluid Type, 11, Oct.
Annual Editorial Index, 38, Jan.
An Open Letter, by C. V. Morris, 24, May.
ANPA Conference in Print, by Staff Writer, 96, Dec.
Are You A Bottleneck? 67, June.
Availability of Color, 21, Feb.
Awarded Army-Navy "E", 106, Dec.

Air Conditioning:

Poughkeepsie (N.Y.) Evening and Sunday New Yorker's New Building, 44, June.

Associations:

A.N.P.A.:

ANPA Conference in Print, 96, Dec.
Burns now ANPA Mechanical Committee Chairman, 9, Nov.
423 replies received by ANPA Mechanical Department, 15, July.
How the 1943 ANPA Mechanical Conference by Mail will be conducted, 37, June.
P.E.E.'s Strolling Reporter Visits ANPA Mechanical Conference in Print Exhibit Hall, 42-43, June.
Report of ANPA Mechanical Department Manager W. E. Wines, 21, May.
Soundness of Mechanical Conference Idea Shown by Growth, by W. E. Wines, 36, June.
The 1943 ANPA Mechanical Conference by Mail, by John W. Park, 35, June.
Thumbnail sketches about 1943 personnel of the ANPA Mechanical Committee, 39, June.

Craftsmen:

Complete Program for 1943 convention of I.A.P.H.C. in Memphis, 13, Aug.
Craftsmen's Convention held in Memphis, 11, Sept.
Miniature Biographies of Board of Governors, 1942-43, I.A.P.H.C., 15, Aug.
Questionnaire, 18, Aug.
War efforts Convention to be held in Memphis August 10-11-12, 16, July.

Illinois Conference:

Savings, by Staff Writer, 12, Nov.

N.A.P.L.:

Photo-lithographers Hold Informative Meeting in Boston, 18, Oct.

New England Conference:

Excellent Conference Report, 64, June.
New England Conference, by Francis H. Britton, 10, Nov.
New England Newspaper Mechanical Conference to be Serious Affair, 24, Sept.

New Jersey Conference:

Informative Program at New Jersey Newspaper Mechanical Conference, by Julian Pollak, 67, Dec.

Northwest Conference:

Northwest Abbreviated Wartime Newspaper Mechanical Conference, 56, June.
Northwest Conference, 14, Oct.
Program for Northwest Mechanical Conference, 54, Aug.

Pacific Southwest Conference:

Production Executives and Their Importance, 66, June.

B

Ball and Roller Bearings, 38, June.

Books:

Eyesight Conservation and the Printer, 20, Mar.
Intertype Book of Instruction, 22, Nov.
Newspaper Presswork Unit, 15, Apr.
Production Standards and Economic Cost Values for Printers, (Fred W. Hoch), 2, Jan.
Report is "Dressed Up", 2, Jan. Linotype Reports—1942.
The Book—The Story of Printing and Bookmaking, 15, Apr.
War Product Research Report, 2, Jan. Report on War Product Research (M.E. Powers)

Bradley, H. G., Random Notes, 11, Apr.
Britton, Francis H., New England Conference, 10, Nov.
Burgoon, Don, Emergency Repair of Display Matrices, 22, Aug.
Burke, J. A., Matrix, Shoulder, Underpinning and Base Data, 57, June.

C

Called "Forge of War", 22, May.
Campbell, James T., Photo-Mechanical Coatings, 75, Dec.
Cam Stop Strip Repairs, by R. B. Denton, 47, June.
Capps H. R., 21 Gauge Zinc, 22, Mar.
Chevalier, Fred, Pins Prevent Center Plate of 3 pc. Truck Slipping on Press Cylinder, 17, Oct.
Christian Science Monitor Awarded Ayer Cup in 13th Annual Typography Exhibition, 32, May.
Chrome Plating Process Has Many Uses in Printing Industry, 195, Dec.
Cockrell, W. D., Electronics—What It Is and What It Means to the Printing Industry, 7, July.
Cockrell, W. D., Electronic Control, Maintenance and Trouble-Shooting Tips, 30, Aug.
Cole, Earl, Cork Conservation, 18, Mar.
Color Register Control Broadened—Lamp Data, 33, Feb.
Complete Program for 1943 convention of I.A.P.H.C., 13, Aug.

Composing:

Cam Stop Strip Repairs, by R. B. Denton, 47, June.
Christian Science Monitor Awarded Ayer Cup in 13th Annual Typography Exhibition, 32, May.
Control Board, by H. D. Rindsberg, 24, Aug.
Craftsmanship, by C. Frank Mann, 28, Apr.
Devices to Facilitate Production, by Clarence C. Ritter, 63, Dec.
Emergency Repair of Display Matrices, by Don Burgoon, 22, Aug.
Fluid Type, by Horace Annis, 11, Oct.
Gauge Insures Exact Alignment, 28, May.
Gauges and Tools, by R. B. Denton, 16, Jan.
Intertype Autospacer, by Russell G. Jensen, 42, Oct.
Lead Hazard in the Printing Industry, by Walter F. Zahn, 24, Nov.
Matrix, Shoulder, Underpinning and Base Data, by J. A. Burke, 57, June.
No Development Work on Nylon Type, 21, Jan.
Photo-Cast, by Staff Writer, 66, Dec.
Practical Compliance With L-226 Helps Get in Critical Scrap, 15, Apr.
Scoring Device, by Homer Livingston, 19, Apr.
Substitute, 64, June.
Substitution of Plastic to Replace Metal in a Slug, 21, Jan.
Tabular Composition, by George Y. Martin, 9, Sept.
Typographic Shadow Boxes Help Conserve Vital Zinc, by Staff Writer, 19, Feb.
Watching Matrix Action in Assembler Chute, by Anthony J. Stanzione, 35, Feb.

Conservation Effort, by Charles J. Hentschell, 17, Nov.
Contributes to Nation's Scrap Supply, 41, Feb.
Control Board, by H. D. Rindsberg, 24, Aug.
Conventions by Mail, 30, Feb.
Copper Halftones on Electrotype Shell, 19, Nov.
Copper, Nickel and Electrotype Metal Conservation by Lundbye Process, by Axel Lundbye, 49, June.
Cork Conservation, by Earle Cole, 18, Mar.
Craftsmanship, by C. Frank Mann, 28, Apr.
Craftsmen's Convention held in Memphis, 11, Sept.
Crowell-Collier Patent, 29, May.
Crystallization of Printing Inks, by Ronald J. McEachen, 23, Feb.
Cutting Damage from Rolls, 100, June.
Cuneo Press Employs Electric Welding for Equipment Repairs, by Francis A. Westbrook, 32, November.

D

Denton, R. B., Cam Stop Strip Repairs, 47, June.
Denton, R. B., Gauges and Tools, 16, Jan.
Devices to Facilitate Production, by Clarence C. Ritter, 63, Dec.
Discusses Postwar Equipment, by H. A. Porter, 17, Nov.

E

Editorials:

Are You A Bottleneck? 67, June.
Printing Plant Fire Hazards in Relation to Machinery Replacement, 7, Mar.

Effective Printing Ink Economy, by Herbert Kaufman, 20, Jan.
Electric Motors are the Muscles of Your Plant, 30, Apr.
Electronic Control, Maintenance and Trouble-Shooting Tips, by W. D. Cockrell, 30, Aug.
Electronic Definitions, 34, Aug.
Electronics—What It Is And What It Means To The Printing Industry, by W. D. Cockrell, 7, July.
Electronographic Printing, 194, Dec.
Electrotypers and Stereotypers Meet, 43, Oct.
Electrotyping Without Wax, Graphite or Impression Lead, by R. M. Schaffert and Bruce W. Gonser, 42, Aug.
Emergency Repair of Display Matrices, by Don Burgoon, 22, Aug.
Enclosed Cylindrical Router Eliminates Flying Chips, by A. R. Jamieson, 78, Dec.

Engraving:

Advocates Making 50% Engraving Zinc Do 100% Job, by Earl Hodgkinson, 22, Mar.
Copper Halftones on Electrotype Shell, 19, Nov.
Kromolite Automatic Dropout, 74, Dec.
Paper-backed Film Stock Problem Eliminated, 17, Oct.
Photo-Cast, by Staff Writer, 66, Dec.
Photo-Mechanical Coatings, by James T. Campbell, 75, Dec.
Photo-Plastic Non-metallic Halftone Process, 14, Sept.
"Pressureless" (Electronographic) Printing, 194, Dec.
Sheet Copper Electro-plated on Plate Glass, 16, Oct.
Substitute, 64, June.
Thin-Gauge Engravings, by W. Roy Manny, 28, Aug.
Three-month Production Records in Five Newspaper Photo-engraving plants, 53, June.
21 Gauge Zinc, by H. R. Capps, 22, Mar.
Typographic Shadow Boxes Help Conserve Vital Zinc, Staff Writer, 18, Feb.
Use of Plastics for Engravings, 21, Jan.

Equipment and Supplies:

Backboard for Maintaining 16 Gauge Engraving Plate Thickness, 26, May.
Color Code for Zinc and Base, 14, Jan.
Color of Plastic Back Indicates Zinc Gauge, 33, Feb.
Color Register Control Broadened—Lamp Data, 33, Feb.
Combines Variable Speed Mechanism and Gear Reducer in Single Unit, 32, Apr.
Douthitt Plate Whirler, 72, Dec.
Dumore Stripper, The, 22, Oct.
Eastern Thin Gauge Zinc Backing, 14, Jan.
Electrotyper's Flux, 26, May.
Elemoto Slide Chart, 72, Dec.
Enclosed Electric Counter, 32, Feb.
Fibre Tape Substitute for Metal Strapping, 72, Dec.
Fireproof Oil-Absorbent Sweeping Compound, 32, Apr.
Gummed Two-Side Tape for Mounting Cuts, 26, May.
Have Wide Application, 72, Dec.
Ideal Electric Tachometer, 73, Dec.
Improved Haberule Visual Copy Caster, 18, July.
Improved Rediboard, 21, Aug.
Improved Tight-Grip Label Paste, 20, Sept.
Johnstone Slitter Wheel Grinder, 86, June.
Lightweight Papers, 13, Jan.
Loose-Leaf Tauber Tubes, 14, Jan.
Lounsbury Binding Method for Publications, 18, July.
Mat for Fine Screen Stereos, 32, Apr.
Non-metallic Fluorescent Fixture, 63, June.
Offset Press Available After the War, 20, Sept.
Payroll Tax Deductions in a Flash, 21, Sept.
Portable Fluorescent Lamp, 73, Dec.
Reanite Bonding Process, 20, Sept.
Rechargeable Flashlight Batteries, 27, May.
Sensitive Emulsion for Litho Plates, 26, May.
Shift-O-Graph Perpetual Work Shift Schedule, 33, Feb.
Spherekote Tympan Paper, 18, Nov.
Stereotex Hydraulic Pre-heating, Molding and Chilling Press, 18, Nov.
Temperature Indicators Hold Promise for Graphic Arts, 13, Jan.
Tornado Electric Writing Tool, 20, Sept.
Tyups for Bundling Newspapers, 20, Sept.
Vandercook Wet Proving Machine, 32, Feb.
Vegimal Vegetable Base Adhesive, 13, Jan.
Wire Nuts, 18, Nov.
Wood Matting, 32, Feb.

Erikson, G. L., This War of Materials, 26, Mar.
Essential-ize Your Printing, 21, Feb.
Every Offset-Lith Image Needs Careful Handling, by Adam Henri Reiser, 20, Jan.
Every Superintendent, by Charles V. Morris, 30, Mar.
Excellent Letterhead Idea, 21, Apr.
"Extra-curricular" Is Answered at Cleveland Linotype Clinic, 39, Oct.

F

Fell, David B., WPB Order L-226, 9, Nov.
Fire-Fighting Equipment—Use Only Approved, 26, Feb.
Fluid Type, by Horace Annis, 11, Oct.
Focuses Attention on Essential Printing, 22, Feb.
Foreman Joe Bloe, Parts I-II, by W. W. Warfel, 54, June;
Part III, 12, July;
Part IV, 36, Aug.;
Part V, 25, Sept.
Part VI, 26, Oct.;
Part VII, 14, Nov.;
Part VIII, 82, Dec.
Foreman, The, by H. W. Heinrich, 34, Apr.
Furth, Charles; Tribute to, 24, Feb.

G

Gauge Insures Exact Alignment, 28, May.
Gauges and Tools, by R. B. Denton, 16, Jan.
Giegengack, Hon. A. E., Government Printing, 21, Apr.
Gonser, Bruce W. and R. M. Schaffert, Electrotyping Without Wax, Graphite or Impression Lead, 42, Aug.
Government Printing, by Hon. A. E. Giegengack, 21, Apr.
Gravure Explained Simply From Technical Standpoint, by C. R. Kaddeland, 72, June.

Gravure:

Crowell-Collier Patent.
Gravure Explained Simply From Technical Standpoint, by C. R. Kaddeland, 72, June.
"Pressureless" (Electronographic) Printing, 194, Dec.

H

Heinrich, H. W., The Foreman, 34, Apr.
Hentschell, Charles J., Conservation Effort, 17, Nov.
Hodgkinson, Elmer, Advocates Making 50% Engraving Zinc Do 100% Job, 22, Mar.
Hodgkinson, Elmer, Suggestion Box, 42-43, June.
How The War Influences Advertising, Printing and Lithography, 18, Jan.
Hubbell, Mannie; New Electrotype Molding Process Used in Magazine Production, 15, Sept.

I

Illinois Conference:

Savings, by Staff Writer, 12, Nov.
Tabloid Mechanical Conference Report, 104, Dec.
Informative Program at New Jersey Newspaper Mechanical Conference, by Julian Pollak, 67, Dec.
Intertype Autospacer, by Russell G. Jensen, 42, Oct.
Investigational Work by Regional Groups, 44, Feb.

J

Jamieson, A. R., Enclosed Cylindrical Router Eliminates Flying Chips, 78, Dec.
Jensen, Russell G., Intertype Autospacer, 42, Oct.

K

Kable Brothers 45th Anniversary, 36, May.
Kaddeland, C. R., Gravure Explained Simply From Technical Standpoint, 72, June.
Kaufman, Herbert; Effective Printing Ink Economy, 20, Jan.
Kranz, Albert B., Second Elevator Transfer, 42, Feb.

L

Lead Hazard in the Printing Industry, by Walter F. Zahn, 24, Nov.
Link, Leon A., Some Potent Things, 16, Mar.

Letters to the Editor:

36, Feb.
Livingston, Homer; Scoring Device, 19, Apr.
Lundbye, Axel; Copper, Nickel & Electrotype Metal Conservation by Lundbye Process, 49, June.
Lundbye Chrome Plating Process Developments, 24, Nov.

M

Machell, Joseph; Tested Standards, 15, Mar.
Management Problems in Printing & Publishing Industry, by A. H. Witzleben, Jr., 19, Aug.
Mann, C. Frank; Craftsmanship, 28, Apr.
Mann, Phil; That Which Makes Me Look, 86, Dec.
Manny, W. Roy; Thin-Gauge Engravings, 28, Aug.
Manufacturers, Suppliers and Dealers Indexes, 111, Dec.
Martin, George Y.; Tabular Composition, 9, Sept.
Matrix, Shoulder, Underpinning and Base Data, by J. A. Burke, 57, June.
McEacben, Ronald J., Crystallization of Printing Inks, 23, Feb.
Merkle, Charles P., Time, Cost and Production, 58, June.
Mergenthaler Linotype Co. conducts Mechanical Refresher courses, 20, Apr.
Miehle Announces Wartime Printing Library, 38, Feb.
Milne, Frank; Momentum, 17, Feb.
Miniature Biographies, 15, Aug.
Momentum, by Frank Milne, 17, Feb.
Morris, Charles V., An Open Letter, 24, May; Every Superintendent, 30, Mar.; Prevue Meeting, 16, Apr.

N

NAPL:

Photo-Lithographers Hold Informative Meeting in Boston, 18, Oct.
New Developments Review, 185, Dec.
New Electrotype Molding Process Used in Magazine Production, by Mannie Hubbell, 15, Sept.
New England Conference, by Francis H. Britton, 10, Nov.

New England Conference:

Excellent Conference Report, 64, June.
New England Conference, by Francis H. Britton, 10, Nov.
New England Newspaper Mechanical Conference to be Serious Affair, 24, Sept.
Northwest Conference, 14, Oct.

Northwest Conference:

Northwest Abbreviated Wartime Newspaper Mechanical Conference, 56, June.
Northwest Conference, 14, Oct.
Program for Northwest Mechanical Conference, 54, Aug.

O

Offset-Lith:

Every Offset-Lith Image Needs Careful Handling, by Adam Henri Reiser, 20, Jan.
Fluid Type, by Horace Annis, 11, Oct.
Management Problems in Printing & Publishing Industry, by A. H. Witzleben, Jr., 19, Aug.
Photo-Mechanical Coatings, by James T. Campbell, 75, Dec.
Press of the Future? by Adam Henri Reiser, 20, May.
"Pressureless" (Electronographic) Printing, 194, Dec.
Tested Standards, by Joseph Machell, 15, Mar.
One Thousand Attend Graphic Arts Industry Meeting in Milwaukee, 86, June.

P

PAC Clinics in Print, 22, May.

Pacific Southwest Conference:

Production Executives and Their Importance, 66, June.

Paper:

Voluntary Conservation Plan, 13, Apr.
Paper-backed Film Stock Problem Eliminated, 17, Oct.
Park, John W., The 1943 ANPA Mechanical Conference by Mail, 35, June.
Participate To Get The Most Out Of Mechanical Conferences, by Jos. B. Addison, 28, Mar.
PEE's Strolling Reporter Visits ANPA Mechanical Conference in Print Exhibit Hall, 42-43, June.
Photo-Cast, by Staff Writer, 66, Dec.
Photo-lithographers Hold Informative Meeting in Boston, 18, Oct.
Photo-Mechanical Coatings, by James T. Campbell, 75, Dec.
Photo-Plastic Non-metallic Halftone Process, 14, Sept.
Pins Prevent Center Plate of 3-pc. Truck Slipping on Press Cylinder, by Fred Chevalier, 17, Oct.
Plastic Printing Element Processes Not Yet Commercially Practicable, 21, Jan.
Pollak, Julian; Informative Program at New Jersey Newspaper Mechanical Conference, 67, Dec.
Porter, H. A., Discusses Postwar Equipment, 17, Nov.
Round-up of Latest Developments in Graphic Arts Victory Committee, 26, Aug.
Postwar Possibilities for Printing Inks, by William F. Talbot, 100, Dec.
Poughkeepsie (N.Y.) *Evening and Sunday New Yorker's* New Period-type Building, 44, June.
Press of the Future? by Adam Henri Reiser, 20, May.

Pressroom:

Crystallization of Printing Inks, by Ronald J. McEachen, 23, Feb.
Cuneo Press Employs Electric Welding for Equipment Repairs, by Francis A. Westbrook, 32, Nov.
Cutting Damage from Rolls, 100, June.
Devices to Facilitate Production, by Clarence C. Ritter, 63, Dec.
Effective Printing Ink Economy, by Herbert Kaufman, 20, Jan.
Electric Motors Are The Muscles Of Your Plant, 30, Apr.
Ink Troubles and Remedies, 180, Dec.
Momentum, by Frank Milne, 17, Feb.
Participate to Get the Most Out Of Mechanical Conferences, by Jos. B. Addison, 28, Mar.
Pins Prevent Center Plate of 3-pc. Truck Slipping on Press Cylinder, by Fred Chevalier, 17, Oct.
Press of the Future? by Adam Henri Reiser, 20, May.
"Pressureless" (Electronographic) Printing, 194, Dec.
Random Notes, by H. G. Bradley, 11, Apr.
Research Shows Lighter Weight Newsprint Practical, 75, Dec.
Seven Kinds of Inks, 177, Dec.
Simple Skid, by A. E. Rosene, 14, Apr.
Systems Coordinated for Specifying and Describing Color, 13, Mar.
This War of Materials, by G. L. Erikson, 26, Mar.
Water-Base Ink, by Staff Writer, 51, June.
When Ink Meets Paper, 177, Dec.
"Pressureless" (Electronographic) Printing, 194, Dec.
Prevue Meeting, by C. V. Morris, 16, Apr.
Printing Patents Report: 25, Jan.; 27, Feb.; 25, Mar.; 31, Apr.; 31, May; 78, June; 21, July; 43, Aug.; 33, Sept.; 31, Oct.; 29, Nov.; 86, Dec.
Printing Plant Fire Protection, 34, May.
Printing Press Specifications, 185, Dec.
Production Executives and Their Importance, 66, June.

Production Methods:

Conservation Effort, by Charles J. Hentschell, 17, Nov.
Control Board, by H. D. Rindsberg, 25, Aug.
Copper Halftones on Electrotype Shell, 19, Nov.
Copper, Nickel & Electrotype Metal Conservation by Lundbye Process, by Axel Lundbye, 49, June.
Facts about Plant Operation, I. & II., by W. W. Warfel, 54, June.
Has This Ever Happened to You? 78, June.
Lundbye Chrome Plating Process Developments, 24, Nov.
Suggestion Box, by Elmer Hodgkinson, 42-43, June.
Time, Cost and Production, by Charles P. Merkle, 59, June.
Program for Northwest Mechanical Conference, 54, Aug.

R

Random Notes, by H. G. Bradley, 11, Apr.
Reiser, Adam Henri; Every Offset-Lith Image Needs Careful Handling, 20, Jan.
Press of the Future? 20, May.
Report of ANPA Mechanical Department Manager W. E. Wines, 21, May.

Research:

Chrome Plating Process Has Many Uses in Printing Industry, 195, Dec.
Investigational Work by Regional Groups, 44, Feb.
"Pressureless" (Electronographic) Printing, 194, Dec.
Printing Plates Research, Inc., Resumes Full Time Research, 65, Dec.
Reports Upon Plastic Plate Developments, 26, Apr.
Research Brings Results, 15, July.
Research Shows Lighter Weight Newsprint Practical, 75, Dec.
Rindsberg, H. D., Control Board, 24, Aug.
Ritter, Clarence C., Devices to Facilitate Production, 63, Dec.
Rosene, A. E., Simple Skid, 14, Apr.
Round-up of Latest Developments in Graphic Arts Victory Committee, by H. A. Porter, 26, Aug.

S

Savings, by Staff Writer, 12, Nov.
Schaffert, R. M. and Bruce W. Gonser, Electrotyping without Wax, Graphite or Impression Lead, 42, Aug.
Scoring Device, by Homer Livingston, 19, Apr.
Second Elevator Transfer, by Albert B. Kranz, 42, Feb.
Seven Kinds of Ink, 177, Dec.
Sheet Copper Electro-Plated on Plate Glass, 16, Oct.
Simple Skid, by A. E. Rosene, 14, Apr.
Sinclair, MacD., Wartime Printing Industry Control, 9, May.
Sober Thoughts for Printers, 90, Dec.
Some Potent Things, by Leon A. Link, 16, Mar.
Stanzione, Anthony J., Watching Matrix Action in Assembler Chute, 35, Feb.

Stereotype:

Chrome Plating Process Has Many Uses in Printing Industry, 195, Dec.
Enclosed Cylindrical Router Eliminates Flying Chips, by A. R. Jamieson, 78, Dec.
Photo-Cast, by Staff Writer, 66, Dec.
"Pressureless" (Electronographic) Printing, 194, Dec.
Substitute Used Extensively in Columbus, O. *Dispatch*, 64, June.
Suggestion Box, 42-43, June.
Systems Coordinated For Specifying and Describing Color, 13, Mar.

T

Tabloid Mechanical Conference Report, 104, Dec.
Tabular Composition, by George Y. Martin, 9, Sept.
Talbot, William F.; Postwar Possibilities for Printing Inks, 100, Dec.
Tested Standards, by Joseph Machell, 15, Mar.
That Which Makes Me Look, by Phil Mann, 86, Dec.
Third Citation, R. Hoe & Co., 106, Dec.
Thin-Gauge Engravings, by W. Roy Manny, 28, Aug.
This War of Materials, by G. L. Erikson, 26, Mar.
Three-month Production Records in Five Newspaper Photoengraving Plants, 53, June.
Thumbnail Sketches about 1943 Personnel of the ANPA Mechanical Committee, 39, June.
Time, Cost and Production, by Charles P. Merkle, 58, June.
Tribute to Charles Furth, 24, Feb.
21-gauge Zinc, by H. R. Capps, 22, Mar.
Typographic Shadow Boxes Help Conserve Vital Zinc, by Staff Writer, 18, Feb.

U

Use Only Approved Fire-Fighting Equipment, 26, Feb.

V

Voluntary Conservation Plan Would Effect 10% Saving in Commercial Print Paper, 13, Apr.
Voluntary Stitching Wire Conservation, 36, Jan.

W

Warfel, W. W., Foreman Joe Bloe, Parts I and II, 54, June; Part III, 12, July; Part IV, 36, Aug.; Part V, 25, Sept.; Part VI, 26, Oct.; Part VII, 14, Nov.; Part VIII, 82, Dec.
Wartime Printing Industry Control, by MacD. Sinclair, 9, May.
Wartime Products Exhibited, 22, May.
Watching Matrix Action in Assembler Chute, by Anthony J. Stanzione, 35, Feb.
Water-Base Ink, by Staff Writer, 51, June.
Westbrook, Francis A., Cuneo Press Employs Electric Welding for Equipment Repairs, 32, Nov.
Wines, Walter E., Soundness of Mechanical Conference Idea Shown by Growth, 36, June.
Witzleben, Arthur H., Jr., Management Problems in Printing & Publishing Industry, 19, Aug.
When Ink Meets Paper, 177, Dec.
WPB Order L226, by David B. Fell, 9, Nov.

WPB:

Advisory Committee working on Solution of Newsprint Problem, 20, Nov.

Air Conditioning Maintenance and Repair Parts Preference Ratings, 89, June.
Amended Copper Order Affects Printers, 35, Jan.
Amended L-28 Order of Interest to Periodical, Newspaper and Printing Plants, 39, May.
Amends L-244 Magazine Print Paper Order, 24, Apr.
Appointments in Relief (Letterpress) Printing Section, 20, Oct.
Availability of Color, 21, Feb.
Biggest Printing Job of Its Kind, 33, Jan.
Book Publishers Restricted to 90% of Paper Tonnage of 1942 Base Period, 12, Jan.
Bronze Powder Released to Printing & Publishing Industry M-9-c3 as Amended, 12, Jan.
Building Maintenance and Repair Defined, 12, Mar.
Called "Forge of War", 22, May.
Cellulose Acetate Under Allocation, 31, July.
Classification of Printed Matter Bound with Wire Stitches, 35, Jan.
CMP—Its Application to the Graphic Arts Industry, 18, May.
CMP Regulation No. 5 Changed, 19, May.
Commercial Printer Can Use Either L-241 Schedule, 28, Feb.
Commercial Printing Paper Order L-241 Amended, 11, Mar.
Commercial Printing Paper Order L-241 Amended, 19, Nov.
Complying with L-226, 34, Feb.
Conservation Order L-250 Regulates Motor Controllers, 12, Mar.
Contributes to Nation's Scrap Supply, 41, Feb.
Copper Engraving Plate Order Relaxed, 28, Feb.
Copper A Vital Need in War Program, 38, May.
Cork Situation, 20, July.
Crowell-Collier Patent, 29, May.
Decentralization of WPB's Operations Function, 22, Oct.
Digest of WPB Orders, 82, June.
Duplicating Machines Redefined, 12, Mar.
Electric Fuses, 56, Aug.
Electric Motor Order (L-221) Revised, 38, May.
Elevator Maintenance Parts, 42, Sept.
Four Composing Machine Makers Intensify WPB's Drive for Scrap, 24, Mar.
Fractional h.p. Motor Repairs, 44, Sept.
High Flash Naptha Under Allocation Control, 44, Sept.
Industrial Wiping Cloth Order, L-312, 42, Sept.
Inventory Toners May Be Used in Other Than Black News Inks, 40, May.
Kimble Volunteers Services, 55, Aug.
Later—PD-1As To Be Filed With Nearest Field Office, 11, Mar.
Liberalizes Copper and Zinc Order M-339, 78, Dec.
Limitation Order Governs Manufacture & Purchase of New Electric Motors, 12, Jan.
Limitation Order L-73 Amended Affects Pencil Sharpeners and File Fasteners, 35, Jan.
Limitation Order L-78, Metal for Fluorescent Light Reflectors Banned, 34, Jan.
Limitation Order L-226, 7, Jan.
Liquidating 16 ga. Inventories of Copper and Zinc, 20, November.
L-226 Amended, 29, Feb.
L-226 Discussed from Dealer's Standpoint, 18, Apr.
L-226 Does Not Apply, 28, Feb.
Machinery Age and L-226, 34, Feb.
Made a Deputy Director, 40, May.
Magazines Now Included in Communication Service, 35, Feb.
Magazine Paper Consumption Restricted by 10%, 10, Jan.
Magazine Purchase Does Not Carry Right to Tonnage Quota, 28, Feb.
Maximum Car Loading, 20, July.
May Replace Damaged or Inventory Paper, 42, Sept.
Mechanical Executives—Take the Initiative, 22, Feb.
Motors Must Bear AA-5 or Higher, 12, Mar.
M-241-a Amended, 40, May.
Must Deduct Tonnage from Own Paper Quota, 24, Apr.
Newsprint Amended Order L-240, 56, Aug.
Newsprint Inventory Restrictions, 57, Aug.
Newsprint Limitation Order L-240, 11, Jan.
Newsprint Order Cut Expected Momentarily, 20, July.
Newsprint Order L-240 Amended, 20, Oct.
No Further Print Paper Cuts Till After July 1, 10, Mar.
Non-essential Uses of Specialty Papers Prohibited, 24, Apr.
No Shift in Base Period, 22, Oct.
No. 1. Salvage Problem.
Obsolete Plate Order Here Again, 16, July.
$100 or Less PD-1As to be Filed at Regional Offices, 11, Mar.
Order L-123 Does Not Apply to Spare Parts for New Equipment, 34, Jan.
Order L-239 Further Restricts Uses of Paperboard Boxes, 32, July.
Order L-294 Limits Display Printing, 54, Aug.
Paper Conservation, 38, Sept.
Paper Conservation Urged in Beveridge Industry, 40, May.
Photo-engraving Zinc and Copper Requirements Tighten, 29, Feb.
Photographic Film Order L-233 Amended, 88, June.
P-100 Revoked, 40, May.
Practical Compliance with L-226 Helps Get in Critical Scrap, 15, Apr.
"Print Paper" Defined, 43, Sept.
Printing & Publishing Industry Placed Under CMP Reg. 5.
Printing Machinery, Operating Supplies and Replacement Parts Affected by Order L-226, 7, Jan.
Priorities Regulation No. 10 Revoked, 12, Jan.
Procedure for Ordering Stitching Wire, 34, Jan.
Production Quotas Lifted, 43, Sept.
Professional Photographers and Publications to Have First Call, 33, Jan.
Quotas Can't Be Switched, 20, Oct.
Relaxes Paper and Paperboard Conservation Order M-241-a, 11, Mar.
Reports Upon Plastic Plate Developments, 26, Apr.
Resin Situation Based Somewhat, 12, Mar.
Restrictions on Copper and Zinc Use Combined in New Order M-339, 20, Oct.
Rubber Orders Consolidated, 55, Aug.
Securing Replacement Parts Quickly in Emergency, 50, June.
Serious Newspaper Shortage in 1944, 20, Oct.
Small Matrix Orders Under L-226, 19, Apr.
Some Potent Things, 16, Mar.
Start "Saving" Them Now, 23, Feb.
Story of the Current Wood Pulp Situation, 29, July.
Thermoplastics Order M-154 Revised, 26, Apr.
Thermoplastics Order Revised, 28, Feb.
This War of Materials, by G. L. Erikson, 26, Mar.
Tin Order Amended, 29, Feb.
Tying Wire Order Issued—Then Amended, 29, Feb.
Use of Paper for Commercial Printing Restricted by 10% of 1941 Base Period, 12, Jan.
Use of 16 ga. Photo-engraving Zinc on Basis of 18 ga. weight, 55, Aug.
Use PD-1a Form, 41, May.
WPB Forms Renumbered, 32, July.
Warns Newspaper Publishing Industry That Newsprint Consumption Must Be Balanced, 26, July.
Wartime Printing Industry Control, by MacD. Sinclair, 9, May.
Wartime Products Exhibited, 22, May.
Water Heater Manufacture Restricted, 35, Jan.
Zinc Control Tightened, 12, Mar.

X Y Z

Zahn, Walter F.; Lead Hazard in the Printing Industry, 24, Nov.

Postwar Service Available Nationally

Ellis T. Gash, Managing-Director of Graphic Arts Market Research, 105 West Monroe St., Chicago 3, announces that the full Postwar Research Service is now available to the graphic arts industry throughout the United States.

Established originally as a Division of the Graphic Arts Association of Illinois, Inc., to serve Illinois printers and lithographers the interest from other sections in this information service resulted in its release nationally.

Provisions are being made to handle requests for special research information by mail, either with direct reference to source material, or when not readily available, transcripts or photographic copies of material will be furnished.

Advertisers' Alphabetical Index

American Publishers Supply . 34-36
American Type Founders 3-8
Atlantic Zinc Works 25
Bingham's, Sam'l, Son Mfg. Co . . . 2
Booth, The E. A., Rubber Co 33
Breuer Electric Mfg. Co 35
Burgess Cellulose Co 28
Certified Dry Mat Co 27
Challenge Machinery Co., The . 33
Cincinnati Enquirer 37
Cleveland Shopping News 37
Cline Electric Mfg. Co 37
Duplex Printing Press Co., The . 35
Eastern Newspaper Supply 32
Edes Mfg. Co 26-30
Hammond Machinery Builders, Inc 31
Harris-Seybold-Potter Co . . . . . **Inside Front Cover**
Imperial Type Metal Co 29
Intertype Corporation . **Outside Back Cover**
Kelly, E. J., Co 37
Lanston Monotype Machine Co . . 7
Linotype Parts Co 27-36
Ludlow Typograph Co 1
Mergenthaler Linotype Co 23
Milwaukee Saw Trimmer Corp . . 34
Mohr Lino-Saw Co 37
Ohio Knife Co 35
Printing Machinery Co., The . . . 29
Rapid Roller Co 6
Richards, J. A., Co 37
Rouse, H. B. & Co 37
Syntron Co 36
Tingue, Brown and Co 31
U. S. Treasury . . **Inside Back Cover**
Vandercook & Sons 37
Wood Flong Corp 33
Wood Newspaper Machinery Corp 4

STARTING JANUARY 18TH

IT'S UP TO YOU!

STARTING January 18th, it's up to you to lead the men and women working in your plant to do themselves proud by helping to put over the 4th War Loan.

Your Government picks you for this job because you are better fitted than anyone else to know what your employees can and should do—and you're their natural leader. This time, your Government asks your plant to meet a definite quota—and to break it, *plenty!*

If your plant quota has not yet been set, get in touch now with your State Chairman of the War Finance Committee.

To meet your plant quota, will mean that you will have to hold your present Pay-Roll Deduction Plan payments at their peak figure—*and then get at least an average of one EXTRA $100 bond from every worker!*

That's where your leadership comes in—and the leadership of every one of your associates, from plant superintendent to foreman! It's your job to see that your fellow workers are sold the finest investment in the world. To see that they buy their share of tomorrow—of Victory!

That won't prove difficult, if you organize for it. Set up your own campaign right now—and don't aim for anything less than a 100% record in those *extra* $100 bonds!

And here's one last thought. Forget you ever heard of "10%" as a measure of a reasonable investment in War Bonds under the Pay-Roll Deduction Plan. Today, thousands of families that formerly depended upon a single wage earner now enjoy the earnings of several. In such cases, 10% or 15% represents but a paltry fraction of an investment which should reach 25%, 50%, or more!

Now then—Up and At Them!

Keep Backing the Attack!—WITH WAR BONDS

This space contributed to Victory by PRINTING EQUIPMENT *Engineer*

This advertisement prepared under the auspices of the United States Treasury Department and the War Advertising Council

Light, Lead Our People

The door of a new year opens. In shadows beyond the threshold we can see dimly the shapes of hard days to come. Difficult days and many problems for our own America. Still darker days for millions of destitute and starving, in lands left charred by total war.

In the days ahead, our first task is to speed the crushing of ruthless, cruel tyranny and oppression...then help to restore to all men, here and elsewhere, the dignity of full freedom. Freedom for each man to order his own life in peaceful ways, without fear of fellow man.

Freedom to work and to earn his daily bread. Freedom for each to aspire...with opportunity measured only by endeavor.

The light that leads to freedoms is *Freedom of the Press:* Education...information of all kinds...news of all that transpires...and the open discussion of opinions and ideas, that sharpens understanding.

Complete freedom of speech and of the press is the light that builds understanding, helping all mankind to advance onward and upward, through the opening door of each tomorrow.

INTERTYPE

Nineteenth of a series of messages on the Freedom of the Press, by INTERTYPE, *Brooklyn*